

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[The Mining Journal is Registered at the General Post Office as a Newspaper and for Transmission Abroad.]

No. 2471.—VOL. LII.

LONDON, SATURDAY, DECEMBER 30, 1882.

WITH SUPPLEMENT. PRICE SIXPENCE. BY POST, £1 4s PER ANNUM.

MR. JAMES H. CROFTS, STOCK AND SHARE BROKER AND MINING SHARE DEALER.
No. 1, FINCH LANE, CORNHILL, LONDON E.C.
ESTABLISHED 1842.

BUSINESS transacted in all descriptions of MINING Stocks and Shares (British and Foreign), Consols, Bonds (Foreign and Colonial), Railways, Insurance, Assurance, Telegraph, Tramway, Shipping, Canal, Gas, Water, and Dock Shares, and all Miscellaneous Shares.
BUSINESS negotiated in Stocks and Shares not having a general market value.

Every Friday a general and reliable List issued (a copy of which will be forwarded on application), containing closing prices of the week.

BANKERS: CITY BANK, LONDON.—SOUTH CORNWALL BANK, ST. AUUSTELL.

SPECIAL DEALINGS in the following, or part:—
50 Almada, 13s. 6d. 35 Herodsfoot, 5s. 3, c.p.
25 Bedford Unit., £1 16 3 100 Indian Consol., 3s.
25 Bratsberg, £2. 75 Indian Glenrock, 12s.
75 Carnarvon Cop., 7s. 6d. 50 Indian Phoenix, 16s. 9
50 Callao Bis, 15s. 50 Indian Trevelyan, 7s.
80 Chile Gold, 15s. 6d. 50 Kapanga, 17s.
50 Colombian Hyd., 7s. 3d. 25 Kildruth, £3 6s. 3d.
30 Consolidated, 5s. 50 La Plata, £1 7s. 6d.
50 California, 20s. 3d. 20 Langford, 9s.
75 Devala Cen., 7s. 50 Last Chance, 9s.
50 Devala Moyer, 13s. 20 Leadhills, £3 3s.
20 D'Eresby Mount, 15s. 25 Marke Valley, 12s.
25 Devon Consols, £4 3/4. 10 Mona, £4.
100 Devon Friend., 6s. 6d. 100 Mounts Bay.
20 Don Pedro, 3s. 25 Morla Du, 5s.
20 Drakeville, 6s. 50 Mysore Gold, 8s.
50 East Blue Hills, 9s. 6d. 75 Mysore Reef, 1s.
50 Eberhardt, 8s. 9d. 10 New Caradon, 3s.
20 East Caradon, £1 1/4. 100 No. Blue Hills, 2s. 6d.
50 East Chilverton, 14s. 6d. 25 New Kitty, £2 1/2.
call paid. 50 No. Herodsfoot, 1s. 6d.
25 East Lovell. 80 Nouv. Monde, 7s. 6d.
20 E. Roman Grav., 4s. 20 North Penstru., 10s.
50 East Wheel Rose. 50 New W. Caradon, 27s. 3
25 Frontino, £2 1/2. 50 Old Owlacomb, 2s.
30 Goginan, 13s. 70 Old Shepherds.
50 Gold Coast, 22s. 6d. 50 Organos, £2 6s. 3d.
25 Grogwinion, 10s. 50 Orita, 22s. 6d.
60 Gawn, 10s. 25 Polrose, 6s.
20 Gunnis (Clit.), £3 10s. 25 Penhalls.
20 Hington Down, 12s. 50 Port Phillip, 3s.
50 Hoover Hill, 3s. 50 Wynard Persever., 6s.
* * * SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.
* * * SPECIAL BUSINESS at CLOSE PRICES in all Market TIN, COPPER and LEAD SHARES.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

RAILWAYS—FOREIGN BONDS—SPECIAL BUSINESS.
Fortnightly Accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

AMERICAN AND CANADIAN STOCKS AND SHARES—SPECIAL BUSINESS.
Fortnightly Accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

OPTIONS, SINGLE OR DOUBLE, dealt in at close market prices.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

INDIAN GOLD MINES.—SPECIAL BUSINESS in:—
Devala Moyer. Indian Phoenix. Rhodes Reef.
Devala Central. Indian Kingdon. South-East Wynard.
Indian Consolidated. Indian Trevelyan. Tambracherry.
Indian Glenrock. Oregum. Wynard Perseverance.
At CLOSE MARKET PRICES, free of commission.
* * * Reliable information given on any of the above. A daily price list issued giving closing quotations. SPECIAL BUSINESS in California, La Plata, Rio Tinto, Frontino and Bolivia, Potot, Chile, Nouveau Monde, Ruby, Richmond.
* * * SHARES IN THE ABOVE INDIAN OR OTHER GOLD AND SILVER MINES SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.
ESTABLISHED 1842.

ELECTRIC LIGHT SHARES—SPECIAL BUSINESS.
Maxim-Weston. Anglo-American Brush. Pilsen-Joel.
Jablochhoff. Midland Brush. Hammond.
Devon and Cornwall. Metropolitan Brush. Gulcher. Sellon's.
Shares sold for cash, account, or for forward delivery (one, two, or three months) on deposit of 20 per cent.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

EAST WHEAL ROSE, OLD SHEPHERDS, MOUNTS BAY, TRESAVEAN.
SPECIAL BUSINESS at closest market prices, net.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

MR. W. H. BUMPUS, STOCK AND SHARE BROKER, AND MINING SHARE DEALER.
44, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1867.

BUSINESS transacted in STOCK EXCHANGE SECURITIES and MISCELLANEOUS SHARES of every description. RAILWAYS, BANKS, FOREIGN AND COLONIAL BONDS, TRAMWAYS, TELEGRAPHS, and all the LEADING INVESTMENTS. Accounts opened for the Fortnightly Settlement.

A List of Investments free on application.
MR. BUMPUS has SPECIAL BUSINESS in the undermentioned:—
50 Akankoo, 10s. 6d. 50 Goodveers, 18s.
100 Almada, 13s. 6d. 50 Gold Coast, 23s. 6d.
25 Bratsberg, 40s. 40 Gawton Copper, 9s. 6d.
25 Bedford United, 37s. 6d. 20 Gunnislake (Clitters), 3s.
10 Carn Brea. 3s. 100 Old Shepherds.
100 Carnarvon Cop. 7s. 6d. 50 Hington Down, 10s. 6d.
30 Copiapo, £4 1/4. 100 Indian Consolidated, 5s.
5 Cook's Kitchen. 100 Indian Glenrock, 12s.
100 Chile Gold, 15s. 3d. 100 Indian Trevelyan, 7s.
150 Callao Bis, 15s. 6d. 100 New W. Caradon, 27s. 3d.
3 Cape Copper, £5s. 100 Indian Phoenix, 16s. 9d.
100 Colombian Hydraulic 5s. 9d. 100 Tregembo, £2 1/4.
50 Drakeville, 10s. 500 Javali.
100 Devala Central, 8s. 9d. 50 Kapanga, 17s. 6d.
100 Devala Moyer, 13s. 15 Kildruth, £3 6s. 3d.
50 Don Pedro, 3s. 70 Langford, 9s.
75 Devon Friendship, 6s. 9d. 100 La Plata, 28s. 6d.
20 Devon Cons., £5. 25 Leadhills, £3 3s. 9d.
100 East Wheel Rose. 100 Mounts Bay.
50 East Blue Hills, 9s. 40 Marke Valley, 12s.
25 East Caradon, 31s. 3d. 150 Nouveau Monde, 7s. 6d.
100 East Devon Consols, £2. 100 New West Caradon, 27s. 3d.
30 Frontino, £2 12s. 6d. 150 North Blue Hills, 2s. 6d.
Where prices are not inserted, offers may be made.

SPECIAL BUSINESS, at close prices, in the SHARES of all the principal HOME and FOREIGN MINES.
* * * Investors and others will do well just now to turn their attention to shares in SOUND DIVIDEND and PROGRESSIVE MINES, many of which may be bought at very low prices, and are likely to improve considerably in value within the next few months.
The present is a very favourable opportunity for securing CHEAP SHARES. Mr. Bumpus devotes special attention to these Securities, and is in a position to afford reliable information and advice to intending investors and others.
WILLIAM HENRY BUMPUS, SWORN BROKER.
OFFICES: 44, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1867.

BRITISH AND FOREIGN MINING OFFICES.
MESSRS. PETER WATSON AND CO.,
19, AUSTIN FRIARS, LONDON, E.C.

All Orders and Telegraphic Messages to Buy or Sell Railway, Bank, Mine, and other Shares and Stocks punctually attended to at net prices for cash or for fortnightly settlements, with advice as to Purchases or Sales, to be addressed to Messrs. PETER WATSON AND CO.

Thirty-eight Years' Experience (Two in Cornwall and Thirty-six in London).
BANKERS: THE ALLIANCE BANK (Limited).

From the proximity of their offices to the Stock Exchange, they are enabled to act with promptitude on all business matters entrusted to them, which at all times are carried out with punctuality.

Being almost daily asked their opinion of particular Stocks and Shares, as well as to recommend mines either for investment or speculation, they beg to state that they give their advice, and recommend mines to the best of their judgment and ability, founded on the best practical information or advice they can obtain from the several mining districts, but they will not be held responsible or subject to blame, if results do not always equal the expectations they may have held out in a property so exceedingly fluctuating as mining, and, indeed, all other classes of Stocks and Shares.

Every information can be obtained on personal application, or by letter, as to Purchases and Sales of Stocks and Shares, and the best investment for capital. N.B.—All matters as to the Management of British and Foreign Mines, &c., and any Private communications are to be addressed to Mr. PETER WATSON.

MESSRS. PETER WATSON AND CO.'S
—STOCK AND SHARE INVESTMENT NOTES—MINES, MINERALS, AND METAL MARKETS—SHARE LIST, No. 849, VOL. XVII., for JANUARY month, will shortly be ready, and will be sent to customers on application.

Annual Subscription..... 5s. | Single Copy..... 6d.

NOTICE TO SUBSCRIBERS.

In January and February Monthly Circulars some important information will be given regarding the present position and future prospects of our Home Dividend and Progressive Tin, Copper, and Lead Mines, and as to the Buying of or Selling Shares in the same.

MR. ALFRED E. COOKE,
DEALER IN BRITISH AND FOREIGN STOCKS AND SHARES
OF EVERY DESCRIPTION.
(FROM 78, OLD BROAD STREET)
ESTABLISHED 1853.
9, OLD BROAD STREET, LONDON.

STOCKS AND SHARES FOR SALE.

Mr. ALFRED E. COOKE can SELL the following lots (or any smaller number of shares) to immediate applicants at prices annexed, free of commission:—

Where prices are not inserted, the market price of the day will be taken, or offers may be made:—
35 Bratsberg Cop., 39s. 6d. 30 Mounts Bay Consols.
125 Callao Bis Gold, 15s. 6d. 50 New Kitty Tin, £2 1/4.
200 Colombian Hydraulic Gold, 7s. 6d.
40 Carn Camborne Tin & Copper, 8s. 6d.
50 Devon Friend., 6s. 6d. 100 Nouveau Monde Gold, 7s. 9d.
100 East Rose Lead. 100 North Blue Hills, 2s. 6d.
30 E. Blue Hills Tin, 9s. 9d. 80 Old Shepherds Lead.
20 E. Caradon Cop., 15s. 50 Organos, £2 6s. 3d.
20 Frongoch Lead, £1 1/2. 50 Orita Gold, 22s. 6d.
40 Goginan Lead, 17s. 6d. 30 North Grogwinion Lead, 20s.
50 Herodsfoot. 50 Parys Copper, 7s. 3d.
40 La Plata Lead, £1 6s. 9d. 120 Prince of Wales Cop., 11s. 9d.
20 Leadhills, £3 1/4. 50 Langford Silver, 9s. 6d.
Many of the above shares can be sold for settlement by arrangement at the middle or end of February account on payment of 20 per cent. deposit. Shares not found in the above list may be purchased on application.
In order to save UNNECESSARY CORRESPONDENCE, it is particularly requested that BUYERS of SHARES in the above list, to which prices are not affixed, will make definite offers when applying for them. SELLERS of SHARES are also invited in all cases to name the very lowest price at which they desire to sell.

PRICES of every description of STOCKS and SHARES are received continuously through the TELEGRAPH from the STOCK EXCHANGE.
MR. ALFRED E. COOKE'S OFFICES are connected by TELEPHONE with the Subscribers to the United Telephone Company, whereby INSTANTANEOUS COMMUNICATION can be established in all parts of London. TELEPHONE NUMBER, 1268.

ALFRED E. COOKE, 9, OLD BROAD STREET, LONDON.
(Opposite the Stock Exchange, with which the offices are in DIRECT TELEGRAPHIC COMMUNICATION.)

1883.—FOR SPECIAL RECOMMENDATIONS, read the INVESTORS' GAZETTE of NEXT FRIDAY. A copy will be forwarded to non-clients on receipt of fee, 10s. 6d., which will be refunded if business results. Published by—

ALFRED E. COOKE, STOCK AND SHARE DEALER,
9, OLD BROAD STREET, LONDON.
Established 1853.

MESSRS. ENDEAN AND CO., STOCK AND SHARE DEALERS,
85, GLOUCESTER STREET, LONDON, E.C.
ESTABLISHED 1861.
Bankers: London and Westminster, Lothbury, E.C.

MR. W. TREGELLAS, 40, BISHOPSGATE STREET WITHIN, E.C.
Deals in all descriptions of STOCKS and SHARES at close market prices.

MR. E. J. BARTLETT, STOCK AND SHARE DEALER,
30, GREAT ST. HELENS, LONDON, E.C.
Selected List of Investments post free on application.

MR. ALEXANDER DAVIDSON,
STOCK AND SHARE DEALER,
LEADENHALL HOUSE, 101, LEADENHALL STREET, LONDON, E.C.

MR. W. MARLBOROUGH, STOCK AND SHARE DEALER,
25, BISHOPSGATE STREET, LONDON, E.C. (Established 30 Years).
Can SELL the following SHARES at prices annexed:—75 Parys Cop., 7s. 6d.
10 Akankoo Gold, 10s. 50 Eberhardt, 10s.
25 Almada, 13s. 25 Frontino, £2 10s.
25 Bedford Unit., £1 16 3 50 Kapanga, 18s. 9d.
30 Bratsberg Cop., £2 1/4. 25 Leadhills, £3 1/4.
50 Bwch United. 30 Langford Silver, 10s.
50 California Gold, 20s. 6d. 20 La Plata, 27s. 6d.
80 Colombian Gold. 20 Mona Consols, 23s.
60 Corporation of South Australia Copper, 21s. 3d.
25 Callao Bis, 15s. 50 Nouveau Monde, 7s. 6d.
50 Devon Friend., 6s. 3d. 40 New W. Caradon, 27s. 3d.
60 Dev. Friendship, 6s. 3d. 30 Organos Gold, £2 1/4.
50 Don Pedro, 3s. 40 Old Shepherds, 20s.
50 East Rose, £1 6d. 30 Orita, fully pd., £1 3s.
25 East Caradon, £1 10 6d. 80 Prince of Wales, 12s.
COLOMBIAN GOLD.—Having an extensive business in these shares both as a Buyer and Seller, investors would best consult their interests by applying to Mr. Marlborough if they desire to do business in them.

TOLIMA.—The return for October fully maintains the extraordinary richness of this great Silver Mine, the net profit for the month being £5312. Western Andes net profit for October, £1000.

Shares in Home, Foreign, and Colonial mines, bought and sold at net market prices, free of commission.

Purchases for forward delivery at special prices on receipt of deposit of 20 per cent.
SPECIAL BUSINESS in TAMAR SILVER-LEAD either as Buyer or Seller. Offers wanted for 20 Pandi River Gold Washing Company of India, £1 paid 5 Lombardy Roads Rail Steam Tram (Limited), £10 fully paid.
BANKERS: ALLIANCE BANK (Limited).

THE DIFFERENTIAL PUMP ENGINE.
(DAVEY'S PATENT),
FOR
DRAINING MINES, WATER SUPPLY OF TOWNS, IRRIGATION,
SUPPLYING DOCKS, PUMPING SEWAGE, and GENERAL
PUMPING PURPOSES.

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HATHORN, DAVEY, AND CO. have Patterns of "Differential" Engines of all sizes, from 5 to 500-horse power, and have facilities for supplying very powerful Engines and Pumps at a short notice.

MR. CHARLES THOMAS,
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3, GREAT ST. HELENS, LONDON, E.C.

MR. ALFRED THOMAS,
MINING AGENT, AND STOCK AND SHARE DEALER,
10, COLEMAN STREET, LONDON, E.C.

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SPARE CASH. What shall I do with it? A new work for the guidance of investors.
Published by ALFRED THOMAS, 10, Coleman-street, London, E.C.
"Invaluable to those who cannot attend the markets."

HENRY GOULD SHARP,
21, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1852.

Bankers—London and County Bank, Lombard-street, London, E.C.

FERDINAND R. KIRK, STOCKBROKER
5, BIRCHIN-LANE, LONDON, E.C.

Fortnightly Accounts opened in all Stock Exchange Securities on receipt of the usual cover.
BANKERS: LONDON AND WESTMINSTER, Lothbury.

JOHN B. REYNOLDS, STOCK AND SHARE DEALER,
37, WALBROOK, LONDON, E.C.
Established Twenty-five Years.

BANKERS: LONDON JOINT-STOCK, Princes-street.

Mr. REYNOLDS transacts business in all descriptions of Mining Property at net prices. He is in a position to obtain reliable information respecting mining shares, and advises upon such information on the receipt of a fee of 21s. He spares neither time nor expense in securing for his numerous correspondents opportunities for obtaining the best investments. Fee allowed if business results.

Mr. REYNOLDS calls attention to the fact of his having persistently recommended West Kitty shares ever since they stood at 20s. each, and that when they stood at 10s. he cautioned holders, and gave his opinion that they would reach £15 this year.

NEW KITTY AND WHEAL COATES.
Shareholders in these important mines should read proceedings of Meetings reported in last week's Journal, page 1564.

GRANVILLE SHARP, STOCK AND SHARE DEALER,
32, QUEEN VICTORIA STREET, LONDON, E.C.
BANKERS: LONDON AND WESTMINSTER, London, E.C.

MR. W. B. COBB, 29, BISHOPSGATE STREET WITHIN, LONDON, E.C.

TOLIMA.—Another great return is reported for October, the net profit for the month being £5312 derived from 104 tons of ore, giving 39,179 oz. of fine silver. The late discovery in the 60 ft. level is fully maintained, going richer into the 70. I have just received advices in reference to this mine from one of the greatest mineralogists of the day, in which he says:—"The more the mine is opened out the more will be the returns, and the deeper it is sunk the richer will be the mineral. The mine will never play out, the veins are too numerous, and prettier fissure veins cannot be seen anywhere." Specimens of the ore from the 60 ft. level may be seen at my office, where also prices of A and B shares may be obtained.

WESTERN ANDES.—Net profit for October, £1000. These and Tolima shares will have a great rise.

BANKERS: ALLIANCE BANK.

JOHN RISLEY, 38, CORNHILL, LONDON.
BANKERS: LONDON AND WESTMINSTER, Lothbury, E.C.

SPECIAL BUSINESS in 50 West Caradon at 27s. 6d., 50 New Caradon at 8s., and 50 New West Caradon at 10s. These are the shares to buy for the coming year (1883). It is proposed at the next West Caradon general meeting to work the West Gonaema Mine, recently added to West Caradon, as a separate concern. The shares will be offered to the West Caradon shareholders *pro rata*, and with a small call of, say, 1s. per share the shares will command a very high price.

MR. W. CARRINGTON, WIRE TRAMWAY COMPANY
OFFICES, REMOVED FROM 76, CHEAPSIDE, TO—
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JOHN LENN AND CO.,
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HOME MINING
IS THE MOST LUCRATIVE INVESTMENT KNOWN.

EAST WHEAL ROSE.
We recommended these Shares in our August Circular at 10s. 6d. They are now 35s. to 40s. each, and are likely to go to £5.

OLD SHEPHERDS
Are certain to equal East Wheel Rose in price shortly. They should be bought at once.

Full particulars on application.

ABBOTT, PAGE, AND CO.,
STOCKBROKERS,
42, POULTRY, LONDON, E.C.

The upward tendency of the Metal Market is causing the price of all good Home Mining Shares to rise rapidly.

WE RECOMMEND, amongst others, for an immediate large rise, the shares of—
EAST WHEAL ROSE.
TRESAVEAN.
MOUNTS BAY.
OLD SHEPHERDS.
WHEAL CASTLE.
HOME MINES TRUST.

All fully paid.

SPECIAL.—We are prepared to give for the "CALL" of any of these shares for delivery, at any fixed time from two to twelve months, considerably higher prices than those now ruling.

We are Buyers for cash or the account at the best market prices of the day. Full descriptions in December Circular, now ready, and post free.

MR. JOHN L. M. FRASER
GREENFIELDS, WREXHAM.
(Eighteen Years' experience at the Great Miners and other Mines.)
Consulting Mining Engineer, &c. Reports, Valuations, Surveys.

SOUND INVESTMENT.
Estimated to yield 30 per cent., and increase in value 200 to 500 per cent.
BRITISH SILVER LEAD SHARES, fully paid, £1 to £1 1/4.
Ten per cent. interest during erection of machinery. These mines can be in specied at a small cost, be cheaply worked by adit levels, a mineral railway run through the set, and the trials have resulted in the discovery of rich runs of ore. Reports and full particulars on application, and at Garrick House, Adelphi Strad.

THE MULBERRY TIN WORKS, LIMITED.

TEN PER CENT. DIVIDENDS.
WORKS IN FULL AND PROFITABLE OPERATION.
OPEN QUARRY. NO SPECULATIVE MINING.
TIN DEPOSIT PRACTICALLY INEXHAUSTIBLE.

(See Report by CAPTAIN JOSIAH THOMAS.)

Dividends payable quarterly—September dividend paid at the rate of 10 per cent.

APPLICATIONS WILL BE RECEIVED FOR 14,494 SHARES OF £1 EACH

(BEING THE BALANCE OF AN ISSUE OF 50,000 SHARES),

Payable 2s. 6d. per share on application, 7s. 6d. per share on allotment, 10s. per share three months after allotment.

Applications for shares may be made to Messrs. BAIN, FIELD, HITCHINS, and CO., Bankers, Redruth, or to the Secretary at the Company's Offices, 11, Clement's Lane, Lombard Street, London, E.C., from whom Prospectuses, Reports, &c., with all information may be obtained.

Meetings of Public Companies.

RED MOUNTAIN MINES COMPANY.

The ordinary general meeting of shareholders was held at the offices of the company, Copthall Buildings, on Thursday, Mr. MURRAY ASTON in the chair.

Mr. THOMAS MATTHEWS (the secretary) having read the notice convening the meeting, the CHAIRMAN read the following report of the directors:—

Your directors have had some uphill work since our extraordinary meeting on Jan. 9 last. It will doubtless be in your recollection that on that occasion a resale of seven of our claims to a company to be formed under the title of the White Star Consolidated Mining Company (Limited) was authorised by you. This was, notwithstanding, very adverse surroundings as regards the general condition of the mining market, successfully carried out, and 10,000 shares were allotted in the new concern, which left 15,000 shares for payment to this company upon completion of the purchase. Mr. Edward Applegarth was appointed manager to the White Star Company, and also acting director at the mines to our company. This gentleman, however, upon his arrival at the White Star property, having made a cursory sort of examination, lasting apparently about 48 hours, sent home to the directors of that company a very unfavourable report, and hurriedly left for a remote part of America. His report to your directors was as follows:—

Dear Sir,—Your directors will have read my report on the White Star property with regret, and it is unnecessary to repeat it here. I received a letter from Mr. Marble yesterday, in which he speaks of coming up here, and he says he will show me the claims belonging to the company. I have not been able to find any one at Twin Lakes that could point any of them out to me, but judging from what I could see of claims in the district, and considering that the White Star and Tiger are supposed to be the best of the lot, I very much question the advisability of coming back here to see them, even if he gets here before the hills are quite covered with snow. The tops are covered now, and it may come a heavy fall of snow any day, or it may not come until Christmas. But from what I have seen of the so-called mines of and about Twin Lakes, I would not have any of them at a gift, and be bound to spend \$50 on them. There is no satisfaction in the matter, that there is not much danger of any one jumping any of your locations. I advise you to abandon the idea of mines at Twin Lakes or Red Mountain, and let us see what can be done elsewhere. Please let me know what amount of funds I can deal with in your interest, for under the present circumstances, you may not be able to do anything with the White Star shares. Please address me at Helena, Montana Territory. Kind regards to the directors and all friends.—EDWARD APPLEGARTH.

This extraordinary report, written without any inspection whatever of this company's claims (the White Star group and Tiger being no longer our property), convinced your directors that Mr. Applegarth had made a very serious mistake, and after mature deliberation, and after waiting to see the action to be taken by the White Star board, your directors wrote a letter to Mr. Applegarth. To this letter the directors replied on Dec. 8, stating that Mr. Tennant was available for the purpose of showing the properties, and they were surprised that Mr. Applegarth should have left the locality so hurriedly to meet friends of his own, on his own business, many hundreds of miles distant from what should have been some of our operations. It was evident that Mr. Applegarth's engagement to this company had never been fulfilled, and, therefore, the directors terminated his engagement. Mr. Thomas Rickard, upon whose report mainly the claims were sold, happened to be in town, and he appeared as much amazed at Mr. Applegarth's report as we were. He gave us every information and help in his power, and through his kindness we have been enabled to get a sight of two reports from eminent experts upon the White Star locations. From these it appears that the lode that was in existence in the White Star and the adjoining Gordon Mine when Mr. Rickard saw them since in both cases pinched in, as they very frequently do to nearly nothing. The Gordon Mine owners, however, are vigorously driving two adits or tunnels into the hill-side at a distance beneath the old workings of 300 and 500 ft. respectively, and hope to intersect the lode at those depths, and their workings will prove our property free of cost to ourselves, and our title being under United States patent and, therefore, indisputable, we can wait without doing any work one year, five, ten, or twenty, or for ever, and no one can touch it. We also have patent for the Tiger, where others are working in the vicinity whose workings will as in the case of the White Star and Gordon to a certain extent demonstrate the value of the Tiger. Mr. Applegarth in his letter states that he could find no one at Twin Lakes to show him our claims, and in the same breath tells us that he had received a letter from Mr. Marble telling him of his coming; but Mr. Applegarth, notwithstanding this letter, rushed away to attend to his own business, leaving the company's affairs to take care of themselves. At the same time our agent at the mines (Mr. Tennant) was available for the purpose. It may be stated that we are doing no work at the mines now of any sort. The position, however, is not without hope. We have the shares in the White Star, which may yet prove of great value, and sundry other claims which are not to be despised. It is the intention of your board to husband the resources of the company, and in the spring they hope to push on with the development of the Iron King, some ore from which Mr. Rickard has seen and thinks very favourably of. Our mines, so Mr. Marble reports, are in the vicinity of workings which are of so great importance that two mills for the reduction of ores have been started quite lately. Now, as to the balance-sheet, which is for 18 months, you will observe a note that Mr. Marble claims over \$300. In reference to this it should be stated that the directors consider Mr. Marble entitled to some recompense beyond the 18l. 15s. charged in the accounts; but looking at the position of the company, they consider the matter one for you to decide to day, after hearing Mr. Marble upon the subject. You will notice there are 725l. calls in arrears. Mr. Applegarth's item speaks for itself. Your directors, finally, have given a great amount of care and attention to the affairs of the company. They have not drawn a halfpenny of remuneration. They regret extremely that they have not a better report for the shareholders, but hope that at the next meeting they will have an improved condition of affairs to report. In conclusion the CHAIRMAN moved the adoption of the report.

Mr. PEARLESS having seconded the motion, The CHAIRMAN, in reply to Mr. Helby, said that the 15,000 shares had not yet been handed to the company, but they would be delivered to them so soon as they were able to grant a United States patent. The last letters from the mine were of a more encouraging nature, and he had every confidence in the ultimate success of the venture.

Mr. PEARLESS said that it was very frequently the case that the lode pinched in at about 50 to 100 ft. from the surface to so small a size as to be hardly perceptible, and that was the case with regard to the White Star.

Mr. MARBLE said that last summer on his arrival, after developing some of the properties, very rich gold ore was found on the Mount Elbert and some other claims. He immediately purchased the option of the inspection of the Gordon Mine, which was producing a large amount of paying ore. He purchased the option of this extension, developed it, and the ore continued from the lode to the time of the cessation of work, when he came to London to organise a new company. The assays of ore taken from different depths were now in possession of the company. When he left the ore body in the vein was as good and as strong as ever, and contained richer ore than when they started. After the company was organised Mr. Applegarth was appointed to go out and superintend the mines, but as he did not arrive as soon as he was expected he (Mr. Marble) went to America, and appointed Mr. Tennant by direction of the directors, and set him to work, and at that time the Gordon was yielding paying ore, but after being worked a few feet the body of ore gave out, but there were veins which showed that there was a true fissure vein. Since then they had commenced to drive a cross-cut tunnel to prove the value of the property in depth, and were in hopes of striking the vein at a right angle. It was not a contact vein but a true fissure vein, so that having once got the ore they must find it again somewhere, and at some time.

Mr. PEARLESS said that in the gulch below they had found a good deal of gold, and they had found a great deal in the gravel. Of course it was all washed down from the surface of the mountain, and there must be a fissure vein there in some place.

After some further questions, which were replied to by the Chairman, the

report and accounts were adopted, and Mr. Ball having been appointed auditor, a vote of thanks to the Chairman and directors terminated the proceedings.

KIMBERLEY CENTRAL DIAMOND MINING COMPANY.

The quarterly general meeting of shareholders was held at Kimberley, South Africa, on Nov. 29.

Mr. GEORGE BOTTOMLEY in the chair.

Mr. KIDGER TUCKER (the secretary) read the notice convening the meeting, and the usual preliminaries having been disposed of, the report of the directors and statement of accounts were submitted:—

The directors congratulate the shareholders on the termination of a state of things in which the Central Company was placed at such disadvantage that profitable work was rendered almost impossible by the hostile actions of a dominant party in the Mining Board. The determined hostility of this section of the Mining Board to the company left the directors no alternative but to appeal to Parliament and the law courts for protection, which course was adopted, with the result that certain principles were laid down which have very materially benefited the company, and without which the compromise and settlement of matters in dispute between the Central Company and the Kimberley Mining Board could not have been made, and your directors have satisfaction in pointing out, as one of the results of the course adopted on behalf of the company, the fact that for the first time for several years, the assessment of Kimberley Mine is founded on an intelligible basis, and all the companies in the mine, under its provisions, are called upon to pay a fairly proportionate share of the rates levied by the Mining Board.

The monetary settlement involves the payment by the Kimberley Mining Board of 45,000l. and costs, as awarded by the courts, and contra payment by the Central Company of the rates for July, August, and September, withheld at the instance of the company's legal advisers. As mentioned in last quarter's report the directors have been giving much attention to the subject of reduction of expenses, with the result that the cost of working has been brought down to 12. 0s. 1-9d. per load including rates, further reductions are in course of arrangement which it is thought will give even more satisfactory results. The synopsis of work during the quarter shows:—Rear hauled, 60,528 loads; water hauled, 5,386,220 gallons. At the beginning of the quarter the floors contained of blue ground 61,941 loads, and there was hauled and deposited in August, 25,228 loads; September, 29,552 loads; and October, 36,341 loads=91,421 loads; together 152,462 loads. There was washed in August, 17,974 loads; September, 23,529 loads; October, 29,329 loads; 70,830 loads; leaving 81,532 loads balance on the floors on Oct. 31. The washing of 70,830 loads of blue ground, and of 2900 loads lumps, produced 89,543 carats; fine sand re-sorted produced 4444 carats, and pickings from claims in 91,421 loads, produced 16,534 carats; showing the total production of diamonds to have been 110,521 carats. Of the total production of diamonds, 110,521 carats, 104,373 carats realised 143,981.7s., and there are 6448 carats still on hand unsold, which are estimated to be worth 7790l., being 17. 7s. 3½d. per carat, or 17. 13s. 2d. per load of 70,830 loads blue ground washed, and 7s. 3d. per load of 91,421 loads of blue ground picked in claims, giving a value of 25. 0s. 5d. per load. A large amount of work has been accomplished by the artisans employed in the company's workshops, and considerable progress has been made in the construction of a direct tramway to north floor, and the machinery for washing on that floor will now soon be at work. Much has been said and written on the subject of an amalgamation of the companies in Kimberley Mine, and some of the directors have been personally addressed with proposals on this subject, but the schemes submitted have hitherto been ill-balanced and unsatisfactory, and have not commended themselves to their consideration, and until it can be shown that an amalgamation will be a positive benefit to the shareholders of the Central Company it will not be entertained.

A communication has been received from a committee appointed by an influential meeting of shareholders held in London, containing a number of suggestions intended for the good of the company. Should the shareholders approve and decide to act on their suggestions, it will be necessary to call a special meeting of shareholders, in order that certain alterations of the trust deed may be made to allow of the action advised—that is to say—the establishment of a London office; the appointment of a London agent; the opening of a London register of shares; and the cancellation of 500 reserve shares of 10l. On Oct. 31 the balance of cash on hand was 75,536 7s. 1d.; mining board bills and reef and water tickets 24,348 18s. 4d.; 2 diamonds on hand, 7200l.; making a disposable total of 105,523 5s. 2d. Of this amount it is proposed to pay out a dividend of 12½ per cent., 72,107 10s.; leaving in hand a sum of 33,415 15s. 5d. to make up the reserve fund provided for in clause No. 26 of the company's trust deed, and to meet any contingency arising out of the present state of the diamond market. The dividend was payable at the company's office, on Dec. 1—12½ per cent.

BUENA VENTURA MINING COMPANY.

The fifth ordinary general meeting of shareholders was held at the offices, 5, Queen-street-place, on Thursday.

Mr. WILLIAM COX in the chair.

Mr. H. SWAFFIELD (the secretary) read the notice convening the meeting. The reports and accounts were taken as read.

The CHAIRMAN said: Then it becomes my duty to move that the reports now taken as read, with the balance-sheet, be received and adopted; and, gentlemen, in doing so I have but very few observations to make, and none of them, I am afraid, will be of a very cheering character; because, although I might start out, and possibly shall start out, by deploring the position that we are in, and ascribing it to the badness of the lead trade, yet I will not blink from you, nor do I blurt from myself, that we have been very much disappointed in these mines. Whether we have a better prospect before us perhaps the end of my observations will give you an opportunity of judging; but at present allow me to say that month after month and year after year these mines certainly have not come up to the expectations we had formed of them. Let me, if you please, convince you and the rest of my brother shareholders that we had an enormously good opinion of this concern—when I say "we," I mean myself and, of course, all my brother directors, and I mean Mr. Charles Tonkin, manager at Linare. Our total capital consists of 25,000l., and Charles Tonkin and I hold one-tenth of the whole amount. Charles Tonkin holds 1315l., and William Cox 1315l., which is upwards of one-tenth of the whole. Therefore, do not let it be supposed that we went into the company without having very strong faith, otherwise you may be quite sure we should not have put the amount of money we have into it or invited our friends from other companies to join us in carrying it out. The mines had not turned out as we anticipated, but I think there is a good time coming. Do not let me depend too much, or put the thing too low for our absent shareholders; for I have this to say that the price of lead has had a very great deal to do with our position. Taking the year to which these accounts refer, if we had been able to sell our lead ores as we ought to have been able to sell it—that is to say if the lead market had been in its ordinary normal state—we ought to have received for it 10l. a ton instead of a little over 6l. Now, if you only take an extra 3d. per ton and multiply it by the quantity we have sold, you will see that even during the last 12 months, we should have been able to pay our costs. Therefore, although I am free to admit that we are very much disappointed by the results of this company, there is a great deal to be said about the price of lead being very much against us. In the past 12 months we have spent 5201l. over and above what we have received; but a considerable amount of that is due to the bad price we have obtained for our produce. I must tell you, as the report tells you, that the 5000 preference shares were not only taken up, but greedily taken up. Perhaps it is a pity we did not ask for 10,000 instead of 5000, and we should have done so, but we expected that the mines would soon be in a paying or profitable condition. We were disappointed in that; but we have still in hand a balance of something like 1600l., and we are in hopes that that 1600l., very judiciously as it has been and is being expended, will be sufficient to see us through till we make it a dividend-paying concern. You may say—"Why talk about a dividend-pay-

ing concern, with the gloomy statement you have made?" Now, I will tell you why? For the first time a little ray of hope has dawned upon us. I wrote to Mr. Tonkin a long letter on the subject of this mine, and on the subject of these accounts, writing as the largest shareholders to one of the largest shareholders, and his reply was to this effect—"We are doing all we possibly can. I think I see indications which will bring us home one of these days—I do not think it will be long first." He writes to Mr. Swaffield, our secretary, on the 13th inst.—"Confirming my remarks of the 6th inst., I have now to inform you that the works are going on well at the mine, and that the improvement in the shaft, east of Taylor's shaft, continues. The shaft has reached the depth of the 10 fm. level, and the men are now driving west to meet the end east from Taylor's. The lode is worth 3 tons per fathom." On the 20th inst. he writes—"It is encouraging to find the lode in the Emma sett, east of Taylor's shaft, holding on so well. In the Atlanta we are cross-cutting towards the lode, and expect to reach it in a few days." Well, now, these two letters are the first rays of sunshine we have seen for the last two or three years, and mind, the Emma sett is one upon which both Mr. Tonkin, and myself, and Mr. Henry, have set our hearts. It is there that the great disappointment has been experienced which has depressed us more than anything else. We have got to a point now from which I believe a new era will set in. There is only one other thing to be hoped for, and that is that several other people will follow the example of Mr. Beaumont and cease lead mining. As Mr. Beaumont always produced 7000 tons to 8000 tons of lead per annum, that decision must make a difference to the market. All we want is a fair price for lead. If we could once see that, I think I can see my way, with the changes of the last few weeks, to the earning of dividends for our shareholders, and when I say that I mean, for myself, for I cannot afford to be without some interest for my money. The Chairman concluded by moving the adoption of the report and accounts.—Mr. WARNE seconded the motion.

Mr. LONGCLUSE: I think Mr. Tonkin would not have taken up so large a share in the mine if he properly had not promised to be a very good one. We must wait and do the best we can.

Mr. R. HENRY: I was there before the whole thing was completed, and I saw tributors bringing up ore by means of a little windlass, which Mr. Tonkin assured me indicated 2½ tons to the fathom.

The motion was then carried unanimously.

The CHAIRMAN proposed the re-election of the retiring directors—Messrs. H. D. Abercrombie and F. W. Bigge.

Mr. RICHARD TAYLOR, in seconding the motion, said: It has been suggested that I should say something about the mining operations, but there is scarcely anything to say beyond what you have in the reports. I may mention that we were unfortunate in the portion of these mines from which we expected the more immediate return. There was a considerable extent of the old workings which were reported positively to be left in good ore. Upon going into those old workings and clearing them we found that that was not a correct statement. There was the principal disappointment. But we have several other strings to our bow, and now one of them has assumed a most promising character. This level, which Mr. Cox has mentioned to us, is only 10 fms. deep. It is so near the surface as that, and yet we have a lode producing 3 tons of ore to the fathom, and I must say I feel that that gives us great hopes that we shall have in that place a good and profitable mine. Other portions are also helping us considerably directly by the produce of ore obtained by the tributors, and our letters say that the tributors are working with great animation, finding the prospects in the places where they are working very encouraging. I hope that that, coupled with what we may raise from the levels we are driving, will, as Mr. Tonkin intimates, very soon render the mine self-supporting; and, as the Chairman pointed out to you, it is quite clear that any sensible improvement in the lead market would turn the scale and make the mine a profitable one. (Hear, hear.)

The motion was carried. On the motion of the CHAIRMAN, seconded by Mr. LONGCLUSE, the auditors—Messrs. H. H. Oakes and J. W. Jepps—were re-appointed, and the meeting then closed.

MONA MINING COMPANY.

An extraordinary general meeting of shareholders was held at the company's offices, on Dec. 21.

Mr. W. BRUCE DICK in the chair.

The CHAIRMAN said that there was nothing particular to bring before the meeting as regarded the mine workings, full details having been issued monthly. Mr. Evans, the company's manager, with Capt. Hughes, was present, and would give any information desired. The only other matter referred to was the necessity for fresh capital to meet the debt due to Mr. Evans, which had been contracted under the circumstances mentioned at the last annual meeting, and having come to a mutual understanding with him this morning the necessity for further increased capital was obviated. He would, therefore, now call upon Mr. Evans to state the situation.

Mr. EVANS said that, although there had been a misunderstanding between him and the board in regard to the money advanced by him for completing the works in hand, amounting to about 5000l., he was willing to take 6 per cent. debentures for the amount, and if further money was needed he would find it. Nevertheless, he did not believe any further capital would be necessary, as in his opinion the company had reached the turning point, and there was now every prospect of meeting the costs of the present cross-cuts and explorations from the returns. To indicate his faith in the mines he was quite willing to reduce his salary one-half until dividends were paid. The condition of the mines was more hopeful than it had been for a lengthened period. The cross-cut from Tiddy's shaft, to come under the bluestone open-cast workings, had only 15 fms. yet to reach the point of intersection. The cross-cut at Marquis shaft, to come under the great gossan deposit, had about 17 fms. yet to be driven before reaching the lode, but the ground was hardening, and this in the Mona Mines was a sure precursor of ore. Both these points would require about six months' time before they would be fully proved. In the 70 east, in Sidney's, they had passed through fine ore, and he looked for a good discovery in the 80, at Cairns. Seventeen years ago, when the mines passed into his hands, he paid for stocks 19,000l., which in two years he returned out of profits, and subsequently paid continuous dividends. This demonstrated his faith in the mines, and he could only say that at the present time he had greater faith in the future than at the time he paid the money, as stated above. It was true that the estimated outlay had been exceeded, but not to such an alarming extent. He now had every confidence that he would shortly be enabled to show good profits, as practically speaking the expenditure on capital account had been completed, and the mine was in a better position for raising ore than for years past.

Mr. SINCLAIR (director) explained his visit to the mines, accompanied by the Chairman, and his views of the arrangement then made with Mr. Evans respecting the financial situation. He regretted the misunderstanding which had arisen, but he was glad now to see that it had been removed.

Messrs. THOMAS, MCKENEGOW, and CAMPBELL then asked various questions as to expenditure and returns.

Mr. THOMAS expressed a hope that the annual general meeting would be held with as little delay as possible.—The CHAIRMAN replied that it should be done as soon as practicable after the completion and auditing of the accounts.

The terms of the arrangement with Mr. Evans to issue to him debentures for the amount of his claim were then read to the meeting, and it was proposed by Mr. SNELL, seconded by Mr. THOMAS, of Brighton, and unanimously resolved—That the shareholders having heard the proposed arrangement with Mr. Evans entirely approve the same, and also the proposed issue of debentures by the board.

The CHAIRMAN said that, speaking on behalf of himself and his colleagues, as Mr. Evans had agreed to reduce his salary one-half, they would reduce their fees in the same proportion, to commence from Jan. 1 next. He had also great pleasure in stating to the meeting that it was their intention to elect Major Garratt a director as the representative of the largest shareholder. He was gratified at the result of the meeting, indicating the establishment of cordial relations between the management, the board, and the shareholders. He could only say, in conclusion, that the directors had done their best in the interests of the company, and in entrusting the local management to Mr. Evans they believe

they had done wisely, and that it was in his power to make the concern a valuable paying property.

It was proposed by Mr. THOMAS, seconded by Mr. CAMPBELL, and unanimously resolved—"That the offer made by Mr. Evans to take half his salary for the present be accepted, and that the question of future remuneration be left to a general meeting to decide, after profits are ascertained, and also that the offer of the directors to take half their fees for the present be accepted. This new arrangement to commence from Jan. 1.

Votes of thanks to Mr. Evans and to the directors and Chairman concluded the meeting.

THE CALIFORNIA GOLD MINE COMPANY (OF COLORADO)

The first ordinary general meeting of shareholders was held at St. Michael's Hall, George-yard, Lombard-street, on Thursday, Mr. JOHN ELLIOTT, the Chairman, presiding.

Mr. EDWARD PENMAN (the secretary) read the notice calling the meeting, and the report and accounts were taken as read.

The CHAIRMAN said that this was the first time he had had the honour of appearing before them as Chairman. He only joined the board about six months ago, and he did so from the feeling that there was great promise in the mine; and, although he had made up his mind not to take any more work, he was tempted to accept the Chairmanship of this company from the belief that the company only required proper attention, that the difficulties which environed it were temporary, and that with due attention and consideration those difficulties could be got over. He was glad to say that the results had justified his anticipations. He thought the shareholders might consider the real difficulties at an end, and that they had simply to deal with a very valuable property, and to work it in the most economical manner. (Hear, hear.) The report gave a short résumé of the main difficulties leading up to the present time. He would not trouble them with these, but the important question for the shareholders to know was whether the statements in the last paragraph could be justified. That paragraph was as follows:—"As the result of the causes named, the preliminary and other expenses set out in the accounts were unduly swelled, but the result of the expenditure, large as it was, remains in the solid position attained, despite of all obstacles and difficulties—a position which the directors confidently expect will place this company in the first rank of permanently remunerative enterprises."

That was a position which was justified by this fact, that before this company handled the property it had a five years' character. It made very large profits for five years, and in the last 10 months realised 23,000*l.* profits. The previous historical accounts of the mine showed that until they got down to a certain depth it was extremely fluctuating, and it was abandoned more than once because they got into very hard rock, which did not pay until the 500 level was reached. That was a characteristic of many true fissure veins, which, was unquestionably, the most reliable class of mining they could have had, and if they got such marked characteristics as the California had; but as all mines of this character had been filled up from below it was only natural to suppose that the best improvement was to be found below. It had been the history of the California Mine. The main shaft was down 1100 ft. when this company took possession, and it was now down between 1300 and 1400 ft., and the deeper they went the better it was. They were all familiar with the great results which attended gold seeking in Colorado, California, and Australia. Those results arose originally from working placer mines, where the surface was worked out, and a great number of men could be put to work, and the results were very large for a short time, and then the fields had been exhausted. But the district in which the California Mine was situated was seamed with valuable true fissure veins, and he was the more encouraged to go into the California from the great results which were accruing to the other mine in sight of it—the Donaldson, on which Mr. Rickard made a report which every day was justifying, and from the fact that similar classes of mines were being developed in a similar manner, for it was an additional proof that this class of mine was the best that they could go into for steady work. When the prospect was looked at, they would doubtless have had had the mine reserved for working capital. The shares were not all taken up by the English public at the time, and negotiations were opened with a French syndicate, who were eager to get hold of it, and who sent out experts who came back with reports which fully justified all that had been said about the mine. At the time the property was brought over here, those who had the conduct of the negotiations had in view the addition of the Hidden Treasure and other lodes, which they thought could be worked at immense advantage in conjunction with the California lode; so that the directors had been taking the Hidden Treasure was no new idea, but working on the old plan. The French syndicate was anxious to have the Hidden Treasure, and offered to find money to buy it. It would have taken a very large sum of money, belonging as it did to many persons; but it had fallen into the company's hands for a less sum than it could be purchased for at that time, and it had come into the company's hands without a penny-piece of commission having been paid. (Hear, hear.) They had this fact to face. This class of mine was something like a farm; if they wanted to get very large profits out of it they must put a good deal of money into it; and the mine had been self-supporting, and had been a paying property, as the fact that they had been able to pay the last two months they cleared 4000*l.* net, without sending a single shilling of capital over from this side. Still, if they wanted more results from it, some more money must be put into it from this side, and it would pay well for doing it. Therefore, he wished to impress upon the shareholders the necessity of keeping that fact still in mind; so that if they were disappointed at all with respect to the results, they must bear in mind that it was not the fault of the mine. He could state, from the capital reports which continued to be received, that the mines would pay well for developing in an energetic manner. At the time the company took the California and the Oakland lode was also secured, and Mr. Rickard was anxious that they should attempt to tap it from the lowest level by a cross-cut. In all probability that lode would correspond in character with the California, which they were now working, and by tapping it down at this very low point they would have to stop the ground above, instead of having to sink, which made a great difference in the mining cost. The directors were very anxious to do that. The directors arranged for the purchase of the Hidden Treasure for 22,000*l.*, which was raised by the sale of 22,000 shares of the company. The shares had been sold at 1*l.* 10*s.* 6*d.* each, and the directors had to borrow in order to pay the deposit due to the vendors—the sum of 5000*l.*—about six months ago, and that was secured generally, on the property of the company, and also by the right of taking shares at par. That right had not yet been exercised, and these shares could be applied to clearing off that debt; or the proceeds of those shares could be used for working capital if the arrangements which were in contemplation could be carried out. In fact, the gentleman who lent the money had such confidence in the mine that he had given an intimation that morning that if the directors wanted twice as much they could have it; therefore, this was the best proof that those who saw the thing was working, and not only retained all their confidence, but that that confidence had been greatly increased by the evidence which the mine afforded of what it was doing. Since the directors came into this room they had had the advantage of reading the last report, which only arrived that morning, and it kept up all the promises which the mine had made. It stated:—

Dec. 2.—Underground Work: 1300 ft. level, drift east of shaft: The ore body is opening out satisfactorily. The vein is strong and well defined; 3½ ft. wide, yielding 7 tons of good milling ore, and 2 tons of smelting ore per fathom. In the slope east of shaft the ore vein is 2 ft. in width, yielding 6 tons of good milling ore per fathom. In the drift west of shaft the lode is 18 in. wide, and apparently of a better grade. In the slope west of shaft here also the quality of the mineral is to all appearances improving. The vein is a little stronger, now 2 ft. wide. Tests continue to be made. In the 1200 ft. level drift, west of shaft, a very considerable falling off has occurred in this drift. The lode is somewhat disordered, and the pay streak will only yield 3½ tons of milling ore of an inferior appearance. In the slope west of shaft, the stone level, the mine and the shaft (100 ft. from the latter) are maintaining their output very satisfactorily. They are now up 75 ft. above the back of the level, and within 10 ft. of the underhand slopes of the late proprietors. The run of ground lately opened out by the drift becomes barren at from 50 to 60 ft. above the level. The slopes have run into this poor ground, with the exception of two lengths of 30 ft. immediately behind the end. Practically this stage is exhausted, and we are dependent on new discoveries for future output. In the drift on south vein the object of this work is the development of a promising looking vein, which intersects the main lode at 315 ft. from the shaft, at a small angle. The pay streak is 1 ft. wide, and set between regular walls of porphyry, and altogether of regular and well defined character. In the 1100 ft. level drift, east of shaft, the lode has improved in size and in the quality of the mineral. The yield is 4 tons of high grade milling ore and ½ ton smelting ore per fathom. In the slope east of shaft, the slope yields 3 tons of good milling ore per fathom. In the drift west of shaft, the lode is opening out steadily, but the grade of the mineral is apparently low. The yield is 4½ tons per fathom. In the slopes west of shaft, the output is 6 tons per fathom, the mill returns from which are very satisfactory, being of an average of over 17 dwts. per ton.

That report was quite equal to anything they had had before from the mine; therefore, when they found that although they had not sent any money over from this side, yet the mine was doing all this work, he thought they had reason to be satisfied that the concluding paragraph in the directors' report would be fully borne out in the future. (Hear, hear.) The directors had before them various projects for adding to the property certain other continuations of this lode, which he did not want to dwell upon too particularly just now, but merely to show them that the directors were not asleep, and that they expected to add very materially to the value of the property by the negotiations which were now going on. It was highly important to get the Hidden Treasure Mine, as they bought with it a mill worked by water-power, and capable of milling the ore of both the mines, and it could be milled at a saving of 60*c.* or 70*c.* for every ton of ore sent down, and as they expected a daily output of 70 to 80 tons from the two mines, that saving would amount to many thousands per year, a saving which would pay high interest upon the Hidden Treasure purchase independent of the profit likely to arise indirectly from it. Their consulting engineer, Mr. Rickard, had suggested that they should erect a wire rope way so as to convey the ore from one mine to the other, because at present the cost of conveying it was heavy, although the distance was not great; still the carriage was an expensive item, and added to the mining cost. Mr. Rickard estimated that for 825,000 they could erect such a ropeway as would effect a saving of 818,000 a year, thus almost paying for itself in the first year. All these things are in prospect. From the circumstances detailed in the report they had been really almost at a stand-still until the last three months, and they had scarcely yet settled to their work; still they had had quite time enough to make such tests as satisfied the directors, in every respect, that the mine would equal everything which was said about it. Good vines needed no bush, and the shareholders would be enabled to judge for themselves, from the reports which they had received, of the prospective value of the mine. The accounts were taken up to the end of the first year, and a more unfavourable period could not well have been adopted. However, there was no help for it; they had had to comply with the law, and the accounts had to be made up for that period during which the mine for three months was standing practically still. The main cause of this standing still was that the works in the adjoining mine were temporarily suspended, and the water choked this company's mine for the time, as the old engine was not fit to work with it, and the directors had to make arrangements to put down more powerful machinery to deal with it. That took a long time, but this and other difficulties had now been got rid of, and in future he believed the directors would be able to show very excellent results. (Cheers.) No doubt the preliminary

costs had been heavy, but the directors had had no means of checking them. But there they were, they had to be paid, and, in fact, nearly all the amount had been paid, having been taken in shares. In conclusion, the Chairman moved the adoption of the report and accounts.

Mr. FRANCIS A. SANDS (managing director) said he had much pleasure in seconding the resolution. He said that perhaps it would be proper that he should make a few remarks to the shareholders assembled. It was pretty well known amongst a large number of them that his name had been closely identified with the property for a long time. He happened to visit Colorado at the time the property was first brought out, and he was enabled to inspect it, but at the time he made his inspection it was under the impression that the company had really been floated here, which was originally formed to acquire it. He felt that the English shareholders had obtained a thoroughly good property, and he recommended an increase of the machinery, as he saw it was absolutely necessary to carry the mine below the then depth, which was 1100 ft. It had since been sunk to between 1200 and 1300 ft., and it was obvious that heavier machinery would be necessary, in order to maintain the regular output of the California Mine. When he returned to London he found that the negotiations had been delayed, and in the meantime he had been appointed the agent of the vendors, and he was necessary on this side. Then came the prolonged negotiations of which they had heard so much. The money had not been raised for machinery, and the works came to a stand-still. In the meantime the company earned a profit of 4000*l.*, which was placed to the credit of the company, although the property had not been made over to the company. He was requested to go to Colorado early last winter, and take over the property for the company. In the meantime he had been assiduous in proposing to the vendors to accept a portion of the purchase money in shares instead of cash, which they did, and they saw their way to so great a profit. They went on with the machinery, and had now the most powerful machinery ever erected in Colorado. It was satisfactory to some of the shareholders, and no doubt was to all, that, notwithstanding the delay, they earned in the meantime sufficient money to pay for the machinery, which was something accomplished. Now they were in this position, that they had got a mine equal to a daily output of 50 tons in the California Mine. They had purchased an adjoining property, but really there was no physical boundary between the two properties. The Hidden Treasure had an equally high reputation with the California, and with the Hidden Treasure Mine the directors had also acquired a mill which was regarded as the finest water-power mill ever built in the State. It had a capacity of 50 tons per day. They also had steam-power at the California Mill which would be extremely useful in winter. At the Hidden Treasure Mine at the present moment, on the recommendation of Mr. Alf. Rickard, they were carrying on the work of development at the lower levels before extracting the ore. This was necessary because they could not expect to go on taking out the ore without making provision for the future, and it was better to develop the lower levels before taking out the ore. This work would not take very much longer, and the money required for it had been provided in advance, owing to the confidence of the gentlemen who made an advance of 3000*l.* being willing to double it, and increase it if we desired, the directors were relieved of the responsibility of raising these shares, and it might be gratifying to the shareholders to know that within the past few hours the directors had been able to raise 2500*l.* by disposing of half of those shares, which would go to working capital, and he believed he had made arrangements by which the remainder would be taken, which would give the company 5000*l.*; to carry on active and systematic development in both mines they could spend more money, but it was not necessary for the present, as they could go on sinking at the California, and continue to open up in the ground there, and he thought it fair to assume that when this little additional work had been done at Hidden Treasure, with the condition which the California Mine was in, they might rely upon an output of 100 tons per day, which was a very considerable output, and would pay a considerable profit. Although there had been disappointments in connection with these negotiations, yet they had certainly a very fine group of mines, and they had the opportunity of securing others if they were early in the field. But it would be premature to speak of those. There was the Indiana, which, he believed, was a virgin mine, and ought to have an important lode, and those who were acquainted with the geology and geography of the district knew that there were other mines which, if acquired, would give this company a group of the finest gold-producing fields in the whole world. This California Mine had a historical reputation attaching to it. In the early days, when they cut through the top quartz, they came to pyrites, which they could not treat, as it was not free milling, but so interested were the citizens that they subscribed to sink the California shaft, and they went 300 ft. through the cap rock before they came to pyrites with free-milling ore. That proved the entire district. Pyrites rushed in and took up other claims, and it had proved the greatest gold-producing district in the world. Therefore, they were dealing with a property which had been proved, and the value of the California Mine in depth was greater than at any other part. He saw the 1300 level, and had examined the mine very carefully, and was much impressed by the massive appearance of the ground. He had been congratulated over and over again by citizens in the place on the company having acquired these mines, and he might say, on behalf of the Colorado people, that they really felt great delight, and he believed most sincere delight, to think that the celebrated California Mine, together with the Hidden Treasure, had come into the hands of English capitalists. (Cheers.) The local feeling was one of pride, and the company would always receive the most hearty co-operation on the part of those with whom they had to do there. For his own part he really believed that he could heartily congratulate the shareholders upon having acquired the property. Its future was one which would go in the most brilliant manner for years to come. It only wanted proper management, and he thought that had been secured. The Chairman, the directors, and he himself, as managing director, watched the accounts very closely, and also all the workings of the mine. They had the welfare of the company at heart, and would do all they could to promote its best interests. (Cheers.)

Mr. WAINWRIGHT drew attention to some of the figures, and expressed a hope that every economy would be exercised till the mine was in a paying position. Mr. F. A. SANDS said that every possible economy was being exercised, and for his own part he should not draw a penny-piece of remuneration till the mine was in a satisfactory position. (Cheers.)

The CHAIRMAN said that no doubt some of the items did appear somewhat high, but the directors had set themselves the task of reducing them as much as possible. He might mention that the consulting engineer had resigned half his salary. The first directors incurred a personal liability of over 3000*l.*—a liability which he would not have undertaken for 10,000*l.* The present board had not received one shilling of remuneration (hear)—but he hoped to be able to show the shareholders results shortly which would make them not dissatisfied with paying the directors for their labour. (Hear, hear.) The directors intended to cut down every shilling where they possibly could; at the same time, if they wanted efficient men in their employ, they must pay them well. In Mr. Alfred Rickard they had secured one of the best resident engineers they could possibly have, and the board had also the fullest confidence in his brother, Mr. Thomas Rickard, who was consulting engineer.

Mr. WAINWRIGHT asked for information about the shares on which 12s. 6*d.* had been paid.

The CHAIRMAN said that part of the money received was in the bank at that moment, and the balance had not been called for. The amount receivable on those shares would go to pay the balance due to the vendors. Therefore it made no difference to the shareholders.

Mr. SOLLAQUE asked whether, according to the rate of profit, if the accounts had been made up to the 31st December instead of 31st of May, the directors could have declared a dividend?

The CHAIRMAN said that no doubt a dividend had been honestly earned, but owing to the circumstances he had named they had used a portion of the profits as capital, intending to restore profits to revenue accounts as soon as capital was provided.

Mr. URWICK urged that a dividend should be paid as soon as possible, and that half-yearly meetings should be held.

The CHAIRMAN said he was glad to meet the shareholders as often as possible. He was an advocate for half-yearly meetings.

Mr. JAY, in highly complimentary terms, called the attention of the shareholders to the essential services which Mr. Sands had rendered to the company by securing the Hidden Treasure Mine. There was no doubt that the connection of Mr. Sands with the company had induced large numbers of fresh shareholders to come in, and had also increased the general confidence which was felt in the property. (Cheers.)

A SHAREHOLDER hoped that the board would not forget the present shareholders in their desire to acquire new properties.

Mr. SANDS said that he had only spoken of those new properties as something in the future.

A SHAREHOLDER thought they had every reason to congratulate themselves upon the report. He hoped the expenditure would be kept down, and a dividend declared so as to show there was some value in the property, in which case the shares would stand higher than at present.

Mr. SANDS thanked Mr. Jay for his kind expressions towards himself, and assured the shareholders generally that he was only too anxious to declare a dividend, and they might depend upon it that it would be done at as early a moment as possible.

The resolution for the adoption of the report and accounts was then put and carried.

On the motion of Mr. FREEMAN, seconded by Mr. RILEY, the auditors, Messrs. Kemp, Ford, and Co., were re-elected.

A cordial vote of thanks to the Chairman, directors, and officers closed the proceedings.

BROADWAY GOLD MINING COMPANY.

The adjourned annual general meeting of shareholders was held at the offices, Queen-street-place, yesterday.

M. JAMES M. WALKER in the chair.

Mr. H. SWAFFIELD (the secretary) read the notice calling the meeting, and the report and accounts were taken as read.

The CHAIRMAN then said: Gentlemen, I do not know that I have any remarks to make upon the report. The shareholders have been informed from time to time in the reports of the *Mining Journal* of what information has been received by the directors. Since these reports the only addition to the information is published in the report, as to the treatment of the ore by the Readwin process, which I regret to say has been unsatisfactory, although apparently the treatment by the Bancroft process is perfectly satisfactory, the statement being confirmed by Mr. Plummer. Since the report was published further information has been received on the subject, which I had hoped would be in the shareholders' hands before to-day. Unfortunately Christmas has interfered with our arrangements, but I may say that we have been in communication with Mr. Butler-Johnstone and Mr. Plummer, who are on the spot. I will read you a circular which will be posted to-night, giving information, and the proposition which will be brought before the shareholders for an increase of capital, to find necessary working capital. He then read the report of the directors, which is as follows:—

To enable you to judge of the exact position of affairs, I have to give the following information which has been received by the board from their co-director, Mr. Butler-Johnstone. Mr. Plummer, the superintendent, sent 1½ cwt. of Broadway ore to the Empire Works in Colorado to be tested by the Bancroft process, the result of which the owner of these works certifies to be that he saved 80 per cent. of the gold at the cost of only 6*s.* per ton. It has now been arranged to make a trial, under the personal superintendence of Mr. Plummer,

of a larger quantity of ore. The entire cost of the additional plant to treat 60 tons a day would not exceed 5000*l.*, including the necessary alterations to existing plant. The cost of working the plant, according to Col. Carter, the manager of the Bancroft process, based on Broadway prices of labour, &c., as furnished by Mr. Plummer, would be less than 5*s.* a ton, which, taking a saving of 80 per cent. of the gold, in the average of the Broadway ore, would leave a profit of 2*s.* a ton; and if the working results gave only a profit of 1*s.* 10*s.*, the original expectations of the Broadway property would be realised. This information has been so far confirmed by cable that Mr. Butler-Johnstone and Mr. Plummer have undertaken, by the sale of useless machinery, to carry on the undertaking without asking from the shareholders any assistance at present for the additional working capital. In addition to the above information on the subject of the Broadway property, the company has now the opportunity of acquiring a most valuable property in Idaho within a comparatively short distance, recently inspected, reported upon, and worked for two months to test its value by Mr. Provis, the well-known mining engineer, which, according to Mr. Provis, will yield a net sum per annum of 30,000*l.* for many years. The purchase of this property is of course subject to the approval of the shareholders, and the capital to be raised would rank *pari passu* with the existing Broadway Preferred shares. The board is satisfied that even if the Broadway shareholders do not subscribe the capital necessary to purchase this property, they can obtain it from other sources, including the necessary working capital for both the acquisition of the Idaho property would be in the hands of the shareholders. The result of the acquisition of the Idaho property would be that the shareholders would receive a large dividend on the whole capital, without reckoning the profits which may now confidently be looked for from the improved prospects of the Broadway Mine. Mr. Provis is so convinced of the value of the Idaho property that he is prepared to undertake the management of it and make his remuneration entirely dependent on results. Mr. Provis is now in America, and is prepared to proceed to the property in January to commence operations.

The CHAIRMAN continued: I now move, "That the directors' report and statement of accounts be received and adopted."

Mr. J. P. HURST: I beg to second it.

The CHAIRMAN: If there is any additional information I can give the shareholders I shall be happy to give it.

Mr. KING: Can you tell me something about the number of ounces of gold—2476*l.* I think they only realised 6300 odd pounds. That turns out a little more than 2*l.* 10*s.* an ounce.

The CHAIRMAN: There was a certain amount of silver mixed with the gold. Mr. KING: How does the case stand with respect to Mr. Wilde's advance? Are we still liable to his estate in regard to that matter? The question was in the hands of the solicitor, I think, at the last meeting.

The CHAIRMAN: I think that is a matter to be dealt with by the solicitor to Mr. Wilde's estate and the company's solicitor. I mean, the question has not come before the board so far; so that I have not asked the company's solicitor what the position is.

Mr. KING: May I ask who is the solicitor?

The CHAIRMAN: Mr. Goodhart.

Mr. KING: Then with regard to the attachment at the mine?

The CHAIRMAN: That is being amicably settled by Mr. Butler-Johnstone, who is on the spot.

The motion for the adoption of the report and accounts was put to the vote and carried unanimously.

Mr. KING, in moving the re-election of the new board—Messrs. H. A. M. Butler-Johnstone, J. M. Walker, and J. P. Hurst—observed that the proceedings of the last meeting conclusively showed that the shareholders were not satisfied with the policy of the old directors. It was a serious thing, such a change in the company's affairs should have immediately followed the change in the direction; but undoubtedly a change had taken place, and although it was not altogether due to the policy pursued by the new board, it was in their favour; therefore, he would propose their re-election.

Mr. TAYLOR seconded the resolution, which was agreed to *nem. con.*

The CHAIRMAN, in acknowledging the compliment on behalf of himself and colleagues, said the board hoped to secure the co-operation and services of Mr. Coxon as one of their number, and a gentleman who had been in communication with him had informed the board that he believed he had induced Mr. Coxon to give the company his assistance as a director. He (the Chairman) was sure that if the board secured that gentleman's services the affairs of the company would be conducted with great energy. (Hear, hear.)

On the proposition of the CHAIRMAN, seconded by Mr. HURST, the auditor, Mr. W. C. JACKSON, was re-appointed at a remuneration of 10 guineas per annum.

Mr. KING moved a vote of thanks to the Chairman for his able conduct in presiding.

The motion was duly seconded and carried unanimously, and the proceedings then closed.

DEVALA-MOYAR GOLD MINING COMPANY.

The third ordinary general meeting of shareholders was held at the Cannon-street Hotel yesterday.

Major-General ALFRED LIGHT in the chair.

Mr. A. N. FRETWER (the secretary) read the notice calling the meeting.

The CHAIRMAN, having explained that his colleagues had elected him to the chair on the retirement of Sir David Salomons, proceeded: In expressing my conviction that the enterprise in which we are embarked must result eventually in success I will give you the reasons for the faith that is in me, and I hope they will commend themselves to your consideration. "Seeing is believing" is an old saying; and though I am not an expert, I think anyone who has had the opportunity, as I have had, of going through your property, cannot return otherwise than impressed with a perfect conviction of ultimate success. I may mention that Mr. Holding, who has lately joined our board, and is now abroad for the benefit of his health, is proceeding at his own expense to re-visit your properties, having been satisfied by me of the salubrity of the Wynad at this season. That it is not a bad climate at any time is proved by the continued good health of our staff. Hardly any sickness has been known during the 18 months of the stay there. On the table you will find a general plan of the estate, showing the position of the mining and the workings of the Strathern. Those who have followed the reports closely, and know anything of the work necessary in opening a mine, such as road making (of which we have made between 8 and 9 miles), erecting buildings, bridges, and things of that sort, will perhaps not consider we have thrown our time away. Waiting, no doubt, is tedious; but it is impossible to win ore without a mine, or to crush it without a mill. The mine has first to be made. That has been done, and a powerful mill has been erected which only requires additional stamps (the engine power is there already) to exhibit its capacity. These additional stamps will be sent out as soon as we know that the results entitle us to do so. What you remember that all this has been done at the cost of under 20,000*l.* our position, will, I hope, appear to you additionally satisfactory. As regards the time which has been occupied, let me remind you that the sale of the Rhodes Reef by this company threw us back many months; but for this delay I think we were well paid by the sum we received for the mine. The transfer to the Rhodes Reef of the machinery we had previously sent out necessitated the dispatch of fresh plant from England, and also the further prospecting of the estate to ascertain the next best spot on which to open active work may be said to have commenced with the arrival of the Australian miners at the end of May, 1881. Deducting from this six months the period of the two monsoons, the rainy season—when out of door work is hardly possible, and you will find the whole of the work has been completed in very little more than 12 months. I believe that any gentleman acquainted with either Australian or Californian mining, or with mines in Cornwall, will tell you that few, if any, are opened out and made dividend-paying under three, four, or five years. If that is the case I ask you whether we have done so badly? Referring to the monsoon may be said to have an idea of its force, I may say that 88*l.* of rain was registered in the Wynad in the last 27 days of July. Now, with our works, covering nearly an acre, completed, and our underground workings opened and made secure, the rains in future will not affect us in any great degree. You must take these circumstances into consideration. Mr. Gitchell needs no defender; but I rather wish to refute the charges which have been made against the managers of Indian mines in general that they have, for the purposes of retaining their salaries, invented delays and made excuses which were unreasonable. When the Wynad has the railway, and when mining, as an enterprise, is developed into an industry, then calculations for the erection of works can be made, and will not be upset, and you will not find native carriers depositing loads of machinery by the roadside because they decline to carry it further; the only intimation you have of this fact being the non-receipt of the goods. Happily these difficulties are, I may say, successfully overcome. Your mill is now running, and the results I hope will be received in due time. The manager had hoped to make a return ere this but from non-delivery of machinery he has not been able to do so. But I am in a position to inform you of a partial clean-out which has been made in the Rhodes Reef Company; 1200 tons of surface quartz have been crushed, yielding 45 ozs. of free gold, or rather less than 1 dwt. per ton; 20 ozs. of retorted gold, and 25 ozs. are estimated to be on the plates, left over for amalgamating purposes. The manager has not stated the quantity of pyrites, but they will certainly not be less than 8 per cent., or 98 tons, and probably more. The important part of the information is that although Mr. Gitchell was only able to commence the amalgamation of the pyrites on the 16th inst., owing mainly to the non-arrival of machinery, he has nevertheless treated 6 tons, and actually secured 3 ozs. per ton, but the total yield of the 1200 tons cannot of course be known till all the pyrites have been treated. Considering that this is the first experiment, the result from the pyrites is especially encouraging; and it is becoming very evident that the Wynad mines are becoming what is known as pyrites mines. It is pleasing also to have Mr. Gitchell's opinion, which he has never departed from, confirmed in such a practical manner, proving absolutely that the ore is in no way refractory. If Mr. Gitchell, at his first experiment, can save 3 ozs. per ton of ore as refractory as from 4 to 5 ozs. it is evident to me that, as he becomes further acquainted with the ore, and gets his machinery and appliances more perfectly adjusted, he will save a larger percentage of gold. Please remember that this return is that of the Rhodes Reef. You must not make up your mind that that is all the shareholders are going to get in the Devala Company's Mine, because the value of the quartz will vary according to the locality. For instance, at the Rhodes Reef I have no manner of doubt the quartz will improve as they go deeper; and in support of this I will read from the manager's report, received this morning, on the part of the Rhodes Reef where he will be working immediately:—"The south end reef contains the best gold I have seen in India. I can see free gold at any time, and a large percentage of pyrites; and I feel confident when we crush them more we shall have good returns." An assay which was made of the pyrites from this portion of the reef gave 11 ozs. per ton. As to the returns of our own company, I ask you to suspend your judgment till returns are forwarded from the Strathern reef and mill. Supposing these figures are reliable, I think we can demonstrate that even with 5 or 6 dwts. per ton we can work at a good profit. You must bear in mind that if these results can be produced out of a 20-stamp mill, each additional gallery will considerably increase the proportion of profit against the working expenses. As to the accounts, it is not necessary, perhaps, to take up your time by going over them. The statements explain themselves; but if anyone desires to put questions, or if any further detail is required, I shall be glad to answer if it is in my power to do so. The accounts were one of the

matters to which I had to give very serious attention when at the mine. I am pleased to be able to state that since then the various statements have come forward with regularity, and made up in accordance with the board's wishes, and from these we are pleased to see that the original estimate of our working costs has not been exceeded. (Applause.) The sum shown to be due by the Rhodes Reef Company has since been paid. The amount charged under the head of legal expenses on mining account, 597l. 6s. 5d., will I anticipate be recovered in full. With 50,000l. hard cash in hand, all our heavy expenditure completed, and expenses at the mill reduced to between 400l. and 500l., we run no risk of failure for want of funds. Our home expenses are covered by interest, so that we consider our financial position a very strong one—to be made stronger, I sincerely hope, by early remittance from the mines; and, besides this, you must not forget that success will also probably enable us to sell one of the other many reefs we still have on our properties. The reduction of the balance of the revenue account is caused solely by the payment of the income tax. This payment was the subject of considerable negotiations. The receipts, which included the purchase-money for the Rhodes Reef on the one side, and the expenditure from the commencement of the company to March 31, 1882, on the other, were, to our advantage, brought into the assessment, and the amount with which we were finally charged was, in our opinion, just and reasonable. The accounts before you are exempt from all taxation. The Chairman concluded by stating that the office cultivation was being proceeded with, and with a favourable season a good crop might be expected. The company had also planted cinchona trees amid the coffee plants, and though the bulk of the cinchona would not yield profit until the trees were of age, yet this year 2000 of the trees had borne bark, and the number would, of course, increase every year. The Chairman having moved the adoption of the report, it was seconded by a director.

Sir LEOPOLD HEATH asked several questions on details, more especially with regard to the machinery at the mine, and the Chairman having replied, Sir Leopold expressed himself satisfied.

After a few observations by Mr. BRIDGES and others, the report was adopted unanimously.

General Light and Mr. Carnegie, retiring directors, were re-elected, and Mr. W. G. Goodlife was re-elected auditor, and the meeting terminated with a vote of thanks to the Chairman.

VICTORINE GOLD MINING COMPANY.

The annual meeting was held at the offices, Gresham House, yesterday—Mr. ALBERT RICARDO in the chair.

Mr. J. JAMESON TRUMAN (the secretary) read the notice calling the meeting.

The CHAIRMAN said—Gentlemen, we have called you together to-day because by our Articles we were obliged to have an annual meeting this year. We should have preferred to have waited a little longer, because we are endeavouring to reconstruct the company. I think you all know that in the beginning of the year we had very glowing accounts from our manager of the wonderful quantity of ore in sight and the wonderful progress of the mine. These reports were sent to us weekly, and we were satisfied with them, because at the time we had every confidence in our manager. But at the same time while these reports were coming, our manager was always asking for more money, until he was perfectly exhausted, and at last we had no more patience, and we began to think it was time to look into what was going on. We elected to send out one of our own body, Mr. Cecil Guinness, who kindly undertook the mission, and we then found that the reports had been greatly exaggerated; that the company was in hopeless difficulties there, and that our money had been partly exhausted in unproductive works. It was found that the machinery for what is called the chlorination process, and which was supposed to do such wonders, was totally inadequate for our ore, and had to be remodelled altogether. The consequence was we had to raise with great difficulty a sufficient sum of money to try a different process; and the process, under Mr. Guinness's eye and Mr. Rickard's eye, has turned out to be very successful; and we are now in this position, that the mine is now a good mine, although not so magnificent as our former manager led us to expect; and we have found the method of extracting the gold from the ore. There is no doubt that the mine itself would pay well; but we are in this position, that we are totally without any more funds and we are in debt there. Under these circumstances, it will be our business to see if we cannot reconstruct the company. Mr. Guinness, who was out there six months, has written a report, and that report will tell you more than I can tell you myself. I need not tell you that Mr. Guinness had full powers to rearrange the management there, and that of our late manager is no longer in our service. Under these circumstances we had to call the bondholders together, because as their interest had not been paid anyone of them might have taken possession of our property, and that would have landed the shareholders nowhere. However, the bondholders have behaved very moderately and very well, and they have formed among themselves a bondholders' committee to confer with the directors, and they have written a report, which will be submitted to the bondholders and in that report there is a suggestion for raising more capital and reconstructing the company. If the bondholders agree to the plan we shall have to call you together again. In the meantime, I do not think I can do better than to ask the secretary to read Mr. Guinness's report.—The report, as already circulated among the shareholders, was then read.

Mr. MACMILLAN suggested that as the balance-sheet had only just been printed, and had not been examined by the shareholders, and as the meeting had been called only as a matter of form, the best plan would be to adjourn the proceedings for two or three weeks, in order that the scheme of reconstruction might be considered, together with the accounts and the reports from Mr. Guinness and Mr. Rickard.

After some conversation, it was agreed to adopt Mr. Macmillan's suggestion, after hearing Mr. Guinness's report.

Mr. CECIL GUINNESS, in reply to some questions, stated that his opinion was that if the mine were started afresh under the altered circumstances it would pay. He believed that Mr. Rickard had the same confidence in the mine as he formerly had. There was no work being done at the mine whatever. It had been discontinued three weeks since.

On the motion of Mr. MACMILLAN, the meeting was adjourned until Jan. 19.

PESTARENA UNITED GOLD MINING COMPANY.

The ordinary general meeting of shareholders was held at the company's offices, Queen-street-place yesterday, Mr. H. J. S. SMITH in the chair.

Mr. R. GARLAND (the secretary), read the notice convening the meeting, and the directors' reports and statement of accounts were submitted.

The profit for the year was 2953l. 15s. 8d., or 1436l. 9s. 11d. less than in the preceding year. This is accounted for by the decrease in the value of the gold produced, and the decline in the stocks of auriferous ores. The gold returns have exceeded those of the previous year by 67 ozs., but they have not realised so much by 375l. The costs for the year have been about the same as for the preceding year, and they include the sum of 236l., which has been expended in the erection of a new smelting furnace, and in the purchase of a new engine, which does not properly belong to the ordinary mining expenditure. The gold production since June 30 has been tolerably well maintained, and falls little short of that for some months before, but at the present time the mines generally are not wearing such a promising appearance as at the date of our last report, and it is feared that the returns may be somewhat diminished during the current year, unless some important discoveries of ore are made. The profits have again been much affected by the partial resumption of specie payments in Italy instead of the paper currency, and it is estimated that for the two years since June 30, 1880, when the abolition of the forced paper currency was decreed, the company has suffered to the extent of about 2177l.

In the Pestarena district a great amount of work has been accomplished during the year; the operations have been confined chiefly to laying open the No. 1 lode in depth by means of the incline shaft and the 120, and in developing the No. 5 lode. The No. 1 lode, in bottom of the mine, has not given the results anticipated from its productive character in the levels above. The lode in the 120 and north is not, but in the other direction it is fairly productive. It is hoped that when the shaft reaches, as it shortly will do, the depth of the 130 a better lode will be found. The No. 5 lode has been worked to the 90, but although for the most part large and productive, yields ore of a low grade. Hopes are entertained of a considerable and early improvement in one or two points of great promise. The stopes generally are yielding their usual quantities of ore, and after some concentration there was passed through the mills during the past year 6086 tons, being an increase of 1753 tons over the preceding year. The average yield of gold, however—16 dwts. 6½ grs., shows a serious falling off, it being less by 7 dwts. 4½ grs. per ton. The mill duty has been 81.5 per cent., as against 83.3 per cent. last year. The reserves of ore in the mine of Pesciera have increased by 3700 tons, estimated to contain 1000 ozs. In Acquaviva they remain the same.

The Val Toppa district ore reduced during the past year amounted to 5895 tons, being a decrease of 843 tons, but there having been an improvement of 1 dwt. 13½ grs. in the yield, there was an increase of 197 ozs. 6 dwts. 11 grs. in the gold produced. The mill duty was 83.7 per cent., being 1.3 per cent. better. The explorations here have not been attended with success, and but little ore has been discovered. In July last, a great storm swept over these districts and did a vast amount of damage to our water-courses and buildings, which occasioned a temporary suspension of the mills, but the necessary repairs, which cost about 250l., were soon effected, and work resumed.

The financial relations between the company and the Bank of Alessandria continue to be most satisfactory, but the profits have not enabled the directors to keep up the repayments to the bank in reduction of their loan to the extent agreed upon. It is for this reason that they have thought it prudent to postpone the payment of the 7th Coupon on the Debenture Bonds until the interruption of profitable working, which the winter is likely to occasion. The balance owing to the bank on June 30, was 7841l. 18s. 1d., and at the end of December, 1882, after charging interest, taxes, &c., it will be about 7040l.

The appeal case of De Fernex and Co. v. the Syndics of Fransi's estate was heard before the Tribunal of Pallanza on July 13, when the previous decision fixing the date of Fransi's bankruptcy to Jan. 1, 1877, was confirmed. But another appeal has now been lodged against this decision, which will be heard in Turin in February. The company's legal advisers are still very confident that the result will be in favour of the creditors, preventing the alienation of a large portion of the bankrupt's assets. It will then be seen what dividend can be paid out of Signor Fransi's estate to the creditors. The amount of the company's claim, as shown by the balance-sheet, is 6427l. 15s. 6d.

[A full report of the Meeting will appear in next week's Journal.]

PHOENIX AND WEST PHOENIX UNITED MINES.—At the meeting at Liskeard on Dec. 21 (Mr. W. Polkinghorne in the chair), the accounts for the 16 weeks to Nov. 4 showed a profit of 1823l. 15s. 4d. and the available balance, after debiting 640l. for balance of slime dressing plant and boring machinery was 1284l. 11s. 2d. A dividend of 2s. per share was declared. The Chairman, in presenting the report of the committee, referred to the accident that had taken place, and to the good pecu-

aspects of the mine, it recommended the above dividend, absorbing 1200l. For the last few accounts they had been in the habit of putting in 1000l. on account of the next month's costs, but inasmuch as they had spent some hundreds of pounds in consequence of the choking of the shaft, and inasmuch, also, as they had an account standing to debit of 640l. 6s. 6d. for slimes plant, &c., it had been thought advisable not to continue to bring forward that in the account of assets and liabilities, but to debit the whole amount at once. It had been, therefore, deemed advisable not to put in the 1000l. But they hoped there would be no difficulty whatever in resuming that account at the next meeting if considered necessary. Capt. Frisk said that the prospects of the mine were good, although they were 10 tons short of what they would have been but for the accident. It is satisfactory to say that everything in the mine is in good working order, the shaft put right, and the water pumped out. Of course they had no control over the price of tin, but his own simple opinion is that they will have a better price in the coming year, and with the prospects of the mine he thought they might look forward to very good results. The Chairman observed that but for the breakage they would have had a better dividend. They, however, might anticipate more auspicious days. He felt they would have a better price for tin during the spring. They might look forward cheerfully, and trust for a continuance of good meetings.

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THE IRON AND TIN DEPOSITS OF TUSCANY.

CAMPIGLIA MINING DISTRICT—No. V.

By BREXTON SYMONS, F.C.S., Assoc. M. Inst. C.E., &c.

ACQUAVIVA TOGNETTI.—The ancient excavations on this estate lie between the Boltrini Iron Mine and the Fucanaya valley. The whole mountain is composed of calcareous strata which have been disturbed and metamorphosed by a boss of eruptive rock on which they repose. Along the highest ridge of Acquaviva, 1250 ft. above sea level, are several large open-cast workings, some of which are continued deep into the white marble. The largest one examined was observed to have a direction nearly south, and to dip at an angle of 40° to a perpendicular depth of 150 ft. The sides of the hollow were everywhere lined with drusy quartz, whose cavities were full of iron oxide. The outcrop of the deposit which was large and irregular consisted of ferric oxide, amphibole, and some calamine mingled with much limonite. The back of the lode for its whole length of 100 fathoms presented a disordered and often brecciated appearance, and was by no means what a Cornish miner would call "keenly." It is not easy to determine which was the metal sought, or to persuade one's self that the explorations were rewarded by any large quantity of mineral. Samples of calamine yielded 36 per cent. of zinc, and to discover this ore in depth a gallery was commenced several years ago, and has since been driven 180 fms. in limonite. Fissures similar to those in the Cavina Mine were intersected, and exhibited traces of calamine, lead, and blende, with gossany iron confusedly deposited amid angular fragments of limonite. Their course was meridional, with a variable width not exceeding 4 ft.

ACQUAVIVA MAFATTI.—On the left bank of the Marmi rivulet, 70 fms. south of Rogers' tin pits, is a very rich outcrop of mangiferous hematite segregated along the southern junction of the Fucanaya eurite with the metamorphic limonite. Its extent is unknown. The area of the set is very great, but the whole of it is so masked by impenetrable bush or macchia that an examination for the existence of mineral is well nigh impossible.

CALDANA.—At the southern verge of the range of metamorphic strata forming the district of Campiglia, just where they dip beneath the alluvion plain, are established the warm baths of Caldana. The stream issues from a fissure in the marble 60 ft. above the Mediterranean, and has a volume sufficient to give motion to several flour-mills and a marble works. 100 fms. west are warm baths which have been erected over another spring flowing from a fracture enclosing brown ore. Although several openings have been made in the small veins of limonite around these springs nothing of importance has been exposed.

RESUME.—An imperfect knowledge of the genesis of the deposits above described led to some useless mining expenditure, and it will be beneficial to sketch the probable sequence of the upheaval and dislocations which led to the accumulation of the metallic ores. Although this may be considered to a large extent speculative, the leading inferences will be so far conformable to fact that works of exploration may be projected with better chance of success than heretofore. The metalliferous deposits are enclosed in rocks of Lower Lias age, but as a long succession of Tertiary beds incline sharply from the metamorphosed nucleus the commencement of the epoch of upheaval could not have been earlier than the conclusion of that period, but was in all probability during Pleistocene time, and the disturbances must have continued down to an age geologically not

remote. The Lias and Cretaceous rocks were gradually elevated along the axial line of the upheaval for a distance of about 12 miles, then the volcanic action gathering strength thrust these formations to a height of several hundred feet, and gave birth to the lofty crests of the Monte Calvi range. The beds of the Cretaceous and Upper Lias have since been removed from the mountains by denudation, thus laying bare the layers of marble, which are seen to possess an anticlinal dip. The power of upheaval may have been finally exhausted in the creation of the eurite dykes; meanwhile, the proximity of the uncooled eruptive rock had effected a notable metamorphism on the overlying strata, obliterating the sedimentary divisions of the beds resting immediately on it, altering the lower aluminous beds into the beautifully striped "bardiglia," and changing the superior calcareous strata into white marble of a quality equal to that of Carrara.

The deposition of the ores accompanying the elvan evidently had its origin after the consolidation of the dykes, when the last throes of the subterranean womb gave rise to the opening of fissures on each side; and to the subsequent birth of hornblende gangues, which were throughout confusedly besprinkled with the sulphides of zinc, lead, and copper, whilst at those flexures in which the conditions were favourable large courses of the same pyritous minerals were precipitated. The deeply seated action which produced these contact lodes is evinced by the existence of sulphides to the exclusion of oxides, and by the gangue of fibrous and radiated amphibole which appears to replace quartz in these deposits. It prevails remarkably, is everywhere met in the mining operations, and even frequently breaks through the adjacent marble in small patches. Hematite is also found in masses of some magnitude, but being more or less blended with quartz possesses no value on an ore of iron. These contact lodes are in many respects similar to true fissure veins, and may be considered to occupy an intermediate position between them and the deposits so often found at the contact of two different formations.

During the series of disturbances which produced the eurite dykes and its deposits, the marble rocks—of Lower Lias age—all over the district were extensively fissured, and probably by means of thermal action were filled with hydrous peroxide of iron of excellent quality. A considerable time must, however, have intervened between the time of fracture and the deposition of the limonite, as frequently hard calcareous ribbon-like bands line both sides of the fissures. High up the flanks of the mountains, sometimes forming the ridge of a spur, as well as in the valleys, are large irregular outcrops of mineralised rock, in which the ancient miners have laboriously fashioned profound caverns. These backs consist principally of oxidised ores of iron, zinc, and lead, rarely mingled with fibrous amphibole, though occasionally an admixture of marble fragments rent from the walls of the fracture imparts to the mass the semblance of a breccia. Sometimes the old caverns have penetrated deposits which intervene, as at the Tin Pits, between the country and the iron lodes, and consequently would seem to have been formed after them. There is not sufficient evidence to particularise the ores which these excavations contained, though in many cases they may have been unsuccessful explorations in search of some metalliferous ore. As a large deposit of oxidised lead ore is now worked in the cavern known as the Tin Pits it is reasonable to suppose that some of the excavations were anciently wrought for ores of similar description. No sulphuretted ores have as yet been met with in any of the fractures isolated in the marble rock, and this fact sustains the supposition that the deposits were segregated remote from the eruptive rock, or possibly at a period when the consolidation of the granitic matter had considerably advanced, and also in comparative proximity to the surface, where atmospheric action would have hastened the peroxidation and precipitation of the iron ores. Ages were lavished on the suite of reactions which filled the fissures with ores of the useful metals, and concurrently the present system of mountain and valley was eroded by aqueous action. The accident through which the peroxide of tin found a passage into the water-worn cavations of particular strata in the calcareous rocks of Fumacchio, and became mingled in the associated irregular masses of ironstone seems inexplicable. The one point of resemblance between the vughs containing the tinstone and the fissures including the limonite is the interposition of calcareous bands which separate the limonite from the ores. No trace of tin has been detected in the fissures of limonite except at Monte Valerio, where it has been washed in from the surface. The deposits just described are distinguished from those grouped around the elvan dykes by producing only oxidised ores, by containing no sulphur combinations, by wedging out at no very great depth, and by the absence of visible connection with the eruptive mass below.

After the cessation of metamorphic action the contraction of the marble rocks in cooling to a normal temperature possibly produced the last series of fissures, or rather large cracks, and these, like most of the iron lodes, pursue a course parallel to the axis of upheaval. They are from 2 ft. to 4 ft. wide, are generally empty in the superior parts, but below contain loose shattered marble distributed through earthy debris. In some of the Algerian iron deposits such local fractures are very numerous, and are filled with ribboned calcspath or ferruginous limonite, which last includes bones of recent mammals.

Remnants of thermal action still endure at the Fumacchio, from whence hot vapours issue, and at the Caldana, close to the lowest level of the southern margin of the metamorphic limestone, where hot springs still issue from the fractures of brown oxide. Possibly the trachyte is nowhere very deep seated, but whether this be so or not it is unlikely that these pseudo fissures will penetrate it to any great extent, as this kind of deposition seems to depend on reactions which take place between two very diverse formations. Notwithstanding that the metalliferous ores of this district may not be persistent in depth, yet shallow deposits of similar character in many parts of Europe have frequently yielded large and profitable returns on the outlay of capital.

This is admittedly but an imperfect resumé of the formation of the ores, but the time allotted for the inspection of the mines did not permit of an adequate study of the strata, whilst the singular occurrence of cassiterite, isolated in a stratum of a marble mountain, provoked a notice. It may perhaps induce some one who is more acquainted with the occurrence of minerals in calcareous rock to volunteer some explanation of its origin.

COLLIERY MANAGERS' POCKET-BOOK.—The fourteenth annual edition of this thoroughly practical little volume has just been issued. (London: Hutchings, Hutton-street, Whitefriars) and contains, as usual, a large quantity of information likely to be required by the colliery engineer in his every-day practice. The calendar and diary are printed on good paper, and affords ample space for notes. Mr. Fairley, the editor, may be congratulated upon having well maintained the character of the pocket-book, which will doubtless continue to receive the support of colliery managers generally.

Calvert's Mechanic's Almanac and Workshop Companion for 1883 just issued, is in every respect equal to its predecessors. The almanac, which is published by Mr. John Calvert, of Manchester, contains much information of value to artisans.

POWERFUL PASSENGER ENGINES.—The Chicago and Grand Trunk Railway has just added to its stock ten large powerful passenger engines. They are supplied with the extended smoke arch, and are said to be perfect smoke-consumers, no smoke whatever being emitted from the funnel, thus obviating the unpleasantness experienced by travellers on account of smoke and cinders. The fire-box is of unusually large size, and is fitted with brick arches and baffles. The engines are of the annexed dimensions:—Cylinders, 18 in. by 24 in.; driving wheels, 6 ft.; cylinders' leading truck wheels, 37 in. of wrought-iron with steel tyres; length of engine over all, 61 ft. 1½ in.; height from top rail to top of smoke-stack, 15 ft. 7 in.; weight on drivers, 66,000 lbs.; total weight of engine, 102,000 lbs. The capacity of the tender is over 3000 gallons, so that the engines can run very long distances without having to stop for water.

a similar type to the No. 2 smelting ore. The No. 3 win-
dowing 1 ton of smelting and 2 tons of concentrating ore p.

RAILWAY AND GENERAL MARKETS.—Referring to the course of business done to-day during official hours (11 to 3) Mr. Ferdinand R. Kirl, Birch-lane, writes:—*Opening:* Several of the more speculative stocks are called in, as is frequently the case towards the end of the year, when loans are recalled in. Mexican Ordinary are no better than 13½, Brush Lights are but ¼, and Hammond's 2½, Hudson Bay shares being 20½ to 30½. Mining shares are only in moderate demand. La Plata, 1¼ to 1½; Elderhardt, ¾ to 1; Wheel Greenvile, 7½ to 8; Ruby, ¾ to 1½; Richmond, 6½ to 7; Glenrock, ½ to 5½; Potomac, ¾ to ¾; Sortridge & Co. to 6½; Wheel Crebor, 2½ to 3; Organon, 2 to 3½; Brighton A are below 157.—*Closing:* After touching 13½ Mexican Ordinary called in, 13½, the market quite so good. Brush Lights are better, and Hammond's 6½. Trunk Ordinary 27 to 27½; Third Preference, 59 to 59½; Potomac, ¾ to ¾; Hoover Hill, 1¼ to ¾; Bratisburg, 1½ to 2½; Leadville, 3 to ¼; Prince of Wales, 109, to 125. 6d.

BRITISH MINES.

down from the great slope. Some of these rocks were some tons weight, of good quality tinstone.

NEW TRUMPET CONSOLS.—R. Quantrell and Son, Dec. 23: Franchi's Lode: The ground in the adit driving east is much more favourable than it has been, and the lode is producing tin, and looking very promising to improve. Wheel Valls Lode: The lode in Trenchless shaft sinking below the 16 continues to open out very well. It is of excellent quality, and of a very favourable character. We expect to communicate the rise above the 16 with the winze below the adit level within a week, when we shall be in a position to stop the back of the 16, and to resume the driving of the 16 west, where there is a very promising lode. South Lode: There is no change to notice in the adit end east. We are driving east of the new shaft, and the lode is getting larger and improving as we drive.

NEW VAN CONSOLS AND GLYN.—James Roach, Dec. 27: In the cross-cut at the 50 shaft a lode from Murray's shaft is still of the most promising description. We have yet some fathoms to drive to reach the south wall. The breast contains numerous cubes of lead. We are almost certain to find courses of lead as the level shall be extended east; price for driving 65s. per fathom. We are cutting into the lode west in intermediate level, where we have a good branch of ore, which we think will continue to aid us in our outcrop. Slope on south part of lode above the 40 is yielding 1 ton of lead per fathom; drivage east of slope 10 cwt. per fathom; slope in middle of lode above the 40 fm. level 10 cwt. per fathom. Dressing of lead is going forward, but the weather is sadly against all surface operations. In pursuance of the instructions of the directors my reports will in future be made fortnightly, instead of weekly as heretofore. It is thought advisable to issue them at longer intervals, as I shall then be able to deal more fully with the mining operations.

NEW WEST CARADON.—N. Richards, Dec. 27: We have intersected another branch or lode in the 33 cross-cut, south of Hallett's shaft: it is about 20 in. wide, composed principally of quartz, but it is at present poor, and we shall not now stay to open out on its course but force on the cross-cut to reach the other lodes. The lode on which we are driving east in this level is further improved, it is now 20 in. wide, and will yield from 1/2 to 1 ton of copper ore per fathom, and looking kindly for further improvement. No change to notice in any other part of the mine since last week's report.

NEW WHEEL PEEVOR.—W. T. White, Dec. 27: Not having as yet met with the lode in the cross-cut driving north at the adit level, we cannot speak of any change since last report, as the cutting of the lode in the cross-cut is the point of importance arrived at.

NORTH BLUE HILLS.—S. Bennetts, Dec. 27: We have not yet cut the lode in the adit end beyond the fault.

NORTH GREEN HURTH.—James Polglase, Dec. 21: The deep adit level is in good ground for driving. The timber in the air shaft has been damaged by the unusual quantity of water from the snow the men are repairing it. The south drive from deep level continues about the same. The men are driving on a branch in the south level from shallow level, which was intersected a short time ago. More will be seen of this shortly.

NORTH HERODSFOOT.—T. Trelease, Dec. 23: There is no change in the 117 end or the stope worthy of notice in the past week; the lode in the winze is about 1 ft. wide, and is still yielding 10 cwt. of lead ore per fathom.

NORTH PENRITHAL.—S. Davey, W. Polkinghorne, Dec. 21: We are pleased to say good progress is being made in the sinking of Highburrow shaft; the shaft is now down about 8 fms. below the 132, and will be prosecuted with as little delay as possible. The lode in the 132 driving west of shaft is 3 ft. wide, of a very kind appearance, and producing a little black oxide of copper. The lode in the 120, west of shaft, is at present disordered by small crossings. The lode in the winze sinking below the 83 is poor. In the 53 cross-cut driving north we have still a hard elvan, but are daily expecting to get through it.

NORTH TREKREBY.—Pryor and Son, Dec. 23: In the deep adit cross-cut north of Scorrer Consols engine-shaft we have just cut into a lode. So far as we can yet ascertain it is composed of spar, munda, and spots of copper ore; next week we shall be able to report on its size and value. We have two other lodes to intersect in the great flat tin lode; these two lodes were formerly worked on in the adjoining shaft by the late Mr. Joseph Lyle, and was very productive. The men in the cross-cut are working well, and making fair progress, and the end continues to let out water freely; the cross-cut is in from shaft about 30 fms., and is being pushed on with all speed to reach the before-mentioned lodes, which cannot fail, in the opinion of all practical men, to make a great mine of itself, and if the south part was drained of water this property would be equal for profits in my opinion to any mine in the county. Saturday next being our pay and setting, when we shall again set to the men for as much as they can drive or cut.

OKEL TOR.—H. Bulford, R. Rodda, Dec. 23: Eastern Part of the Mine: The men are busily engaged putting in the necessary timber in plat, and putting in skip-rod from the 50 to the 65, and which we hope to have in order for hauling by the end of next week. The 65 end is set to four men to drive east on the south part of the intermediate lode, at 7 ft. per fathom; lode worth 3 tons of arsenical ore per fathom. No. 1 stope, in back of the 65, is set to two men, at 2 ft. 10 in. per fathom; lode worth 7 tons of arsenical ore per fathom. No. 2 stope, unable to set, worked by four men; slope worth 12 tons of arsenical ore per fathom. The end in the 50 east is set to four men, at 5 ft. per fathom; this end has a very kind appearance, and is producing saving work for arsenical and copper ores. We have set to four men to rise in the back of this level, behind the end, at 3 ft. per fathom; there is producing saving work for copper and 3 tons of arsenical ore per fathom. The winze in this level is holed to the 65. We have set to four men to drive west an intermediate end to cut out ground for stopes; the end is worth 10 tons of arsenical ore, carrying only part of the lode. No. 1 stope, in this level, is set to eight men, at 2 ft. 7 in. 6 d. per fathom (adit), and is worth 3 tons of arsenical ore per fathom, or 15 tons, the width of the lode. Western Part of the Mine: No. 1 stope, in back of the 65, is set to four men, at 4 ft. 10 in. per fathom; lode turning out 10 tons of arsenical ore per fathom. No. 2 stope, in back of same level, is not set; it is worth 12 tons of arsenical ore per fathom. No. 3 stope is not set; this stope is worth 8 tons of arsenical ore per fathom. No. 4 stope is set to four men, at 3 ft. per fathom, and is worth 10 tons of arsenical ore per fathom. We have set to four men to drive an end off on the north part of the north lode from this stope, at 4 ft. 10 in. per fathom; this end is now working, and is producing saving work for arsenical and copper ores; this end will open up a splendid piece of ore ground. The two stopes in the 35 are not set; they are being filled up with residue from surface to keep the sides secure.

OLD GUNSLAKE.—W. Skewis, R. C. Secombe, Dec. 20: We are pleased to say we have got through the channel of heavy ground in the adit level west and are now in firm granite rock in which we shall hope to be able to report cutting the lode at an early date. The lode in rise continues to yield rich quality copper ore mixed with gossan.

OWEN VEAN AND TREUTHA DOWNS.—William Derry, Dec. 25: The bob was successfully landed on the bob-walk on Friday last, and was the quickest job I ever saw done. I promised Phillips 12, if he did it by Saturday, and I considered that would be excellent work. On Saturday the new spring and side beams were fixed in their places. Mr. Loam has promised to send on a couple of good joiners, and I am writing him now to keep him to the mark, as I want the cylinder fixed forthwith. Although it is a general holiday, I go to the mines to-morrow to make some necessary arrangements. Richards, the man who has cut the engine, will be back this week, and will proceed to fix the boilers and prepare for lifting the shaft, &c., so you see our work is fast coming about.

PARYS COPPER CORPORATION.—T. Mitchell, Dec. 23: The lode in the 65, east of cross-course, continues to yield 4 tons of copper ore per fathom. We have another cross-joint now coming into the end, and the ground in connection with this joint is everything that can be desired for the production of copper. We are hoping for a further improvement here as we advance in this direction. We are clearing the precipitation pits with old iron as fast as we can bring it up from the port, so that the pits will be in good working order again very shortly.

PATTERSYKE AND CLARGILLHEAD.—J. Peart, Dec. 22: In the top level the south end is improving. We have got some better ore this last two weeks, it is not rich, but makes nice bouse. The north is only poor. I have set the men to cross-cut a few feet to the west as I think there may be some vein off on that side. Low Level: In my last report I said we had got up to the rise foot below old climbing way shaft, but I now find that it was not into the old working, and not into the new shaft. But not to let it be, having got to it we will, I think, have no more difficult ground to deal with, and will soon reach the forehead. The last two weeks we have cleared out and put into good repair 25 fms. of level.

PENHALLS.—S. Bennetts, J. Goyns, Dec. 27: There is no alteration to notice in the 80. The 70 east end is showing signs of improvement, and producing good stones of tin. The 60 east end is worth 8 ft. per fathom, and the west end on same section of lode 6 ft. per fathom, but the Baldwin lode, the 40 west end, is worth 6 ft. per fathom. Elsewhere no change to notice.

PENYANT.—Kemp, Dec. 23: The various stopes throughout the mine continue to look well, and we are increasing our output.

POLCREBO.—Wm. H. Martin, Dec. 26: I am pleased to report that we have been very successful in drawing the water with horse barrels, clearing and securing Highburrow shaft under adit, and also the clearing and securing the 17 east, which is now communicated with Highburrow shaft, and the mine is now thoroughly ventilated. The Highburrow shaft is sunk 13 fms. under adit, and a rise put up 4 fathoms from the 17, and holed to the shaft. Our shaftmen are cutting down the rise, making it the full size of the shaft; this work will be pushed forward with all speed. We have started the driving of the 30 east from engine-shaft, by four men; after the end is driven 5 or 6 ft. I purpose to put six men. The ground about the shaft is very hard and spare for driving, but as we extend east under the tin ground in bottom of the 17 I expect not only a change in the ground but a rich lode of tin will be opened up. We have also started a cross-cut south in the 17 to intersect the south lodes, by four men. To-morrow we shall draw a parcel of tinstone from the north level, and on Friday (being our pay day) I purpose to set the tin ground on tribute, and also set the whole of the bargain. For the present I need not comment on the future prospects, as they were fully given at the general meeting.

POLKROSE.—W. Bennetts, Dec. 27: Last week we had to stop the engine a short time to do the necessary work that had to be done in the shaft; but these things are no more than would require to be done in the regular course of working; but, of course, at the present time any little delay makes a difference to us in forking, but I am pleased to say that everything is now working well, and we are in a regular way of forking, and I hope in a day or two to see the back of the 90.

PRINCE OF WALES.—S. Roberts, Dec. 27: Setting Report: The 102 east, set to six men, at 10 ft. 10 in. per fathom. Lode when last taken down was 3 ft. wide; worth 8 ft. per fathom for tin. They will now commence to take it down again. Rise in back of this end, to four men, at 8 ft. per fathom. The lode, which is large and hard, we shall let stand till we hole the rise. Cross-cut south in the 102 west, set to six men, at 7 ft. per fathom. No change here since my last. The 90 west, set to six men, at 10 ft. per fathom. The lode is now in good ground, and is improved, being 2 ft. wide, and producing a little copper ore; a very kind lode. Stope in back of this level, to four men, at 6 ft. per fathom. Lode 3 ft. wide; worth 9 ft. per fathom for tin and copper ore. Stope in back of the 90 east, set to four men, at 6 ft. per fathom. Lode 4 ft. wide; worth 11 ft. per fathom for tin. Stope in bottom of the 77 east, to two men, at 7 ft. 6 in. per ton; lode 3 ft. wide; worth 6 ft. per fathom for tin. Cross-cut south in the 77 west, to two men, at 6 ft. per fathom. Tribute pitches in back of the 55 west, and back of the 90 east and west, 13 ft. 4 in. wide. Stope in back of the 23, to two men, at 5 ft. per ton. Lode 4 ft. wide; worth 8 ft. per fathom for tin.

PRINCE OF WALES.—The shaft on the western vein is now down 4 yards

below the No. 5 floor. The heavy fall of snow has retarded the work, but it is expected that better progress will be made next month. The shaft is being sunk by the Edison method.

ROMAN GRAVELS.—Arthur Waters and Son, Dec. 23: The 125, south of new engine-shaft, is in a lode 4 ft. wide, calc spar with stones of ore, and improving. The north end shows a lode 2 1/2 ft. wide, worth 1/2 to 1 ton of lead ore per fm. The 110, north of old shaft is in a lode 4 ft. wide, yielding some good ore stuff, and the indications point to an improvement shortly. The 110, south of new shaft is at present worth 1 ton per fathom, but we are only now getting into the run of ore seen at Robert's winze in the 95. The winze in 110, north of above shaft, is down 5 fms. 4 ft. 6 in., opening out stopping ground. The 95 south is in a lode 4 ft. wide, worth 4 tons per fathom, and will go on increasing in value as the end advances. The 80 south is in a lode 4 ft. wide, worth quite 8 tons per fm. This end, too, will improve in value as we go forward. The stopes generally are yielding their usual quantities of lead ore. We have to-day sampled 250 tons of lead ore for sale next week.

RUSSELL UNITED.—John Bray, Dec. 22: The 97 east continues from 5 ft. to 6 ft. wide, of a very promising character. The lode in the 97 west is still worth 7 ft. 10 in. per fathom, and the indications are very good. No improvement at Stephen's shaft.

SORTIDGE.—W. Skewis, Dec. 27: We have again bored to the old level in the deep adit, from which there is a very large stream of water coming, and notwithstanding the very heavy rains from day to day, the water is going down in the engine-shaft at the rate of 2 ft. in 24 hours. We are making arrangements to increase the size of the hole for the purpose if possible to let it down still faster. There is no particular change in the value of the lode in the 30. The stamps are working day and night, and the dressing of the tin is being pushed forward, although the weather is much against us.

SOUTH CONDRURROW.—W. Rich, W. Williams, H. King, Dec. 20: The cross-cut in the 93, east of King's, is not yet through the lode. The 30 east and west 12 ft. per fathom, and the slope in the back of this level is worth 15 ft. per fathom. The 70 east and west 7 ft. per fathom. The stope in the back is worth 12 ft. per fathom. The 60 east and west 15 ft. per fathom. The 50 east and west is unproductive. Two stopes in the back of this level are worth 8 ft. and 12 ft. per fathom respectively. The 40 east, east of engine-shaft, has an improved appearance, and is worth 9 ft. per fathom. The 30 east and west is letting water out freely, and yields low quality tinstone. The 30 east and west is unproductive at present. Two stopes in the back of the 30 east are worth 15 ft. and 20 ft. respectively. There is nothing very special to report on at Marshall's shaft.

SOUTH DARRIN.—Henry James, Dec. 23: In the 130 east the lode is worth 15 cwt. of silver-lead ore per fathom. The lode in the 120 west is not so good, the lead being more mixed with hard rock, at present worth 1 ton per fathom. In the same level east the lode is worth 1 1/2 ton of silver-lead ore per fathom. There is no important change at any other point to call for remark. All the machinery is in good order, and all work going on satisfactorily.

SOUTH DEVON UNITED.—Wm. Hooper, Dec. 23: The lode in the 110, east of Brook engine-shaft, is about 3 ft. wide, with a value of 16 ft. per fathom; there is no change in its appearance, any special remark being made since last report. The stope in the back of this level is worth respectively—No. 1, 6 ft.; No. 2, 8 ft.; No. 3, 8 ft.; and No. 4, 8 ft. per fathom. The stope in the back of the 110 and 100 west are worth 9 ft. and 6 ft. per fathom. The stope in the back of the 100, east of Brook engine-shaft, are worth 8 ft. per fathom. There is no change in the character or size of the lode at the 90, east of Brook shaft, since last reported on. The stope in the back of the 80, east of Brook shaft, is 4 ft. wide, with a value of 8 ft. per fathom. The lode in the adit level, west of Old Pump shaft, presents much the same appearance as for some time past. At Mark's shaft the men are making fair work in squaring down the above to the bottom of the perpendicular. At Picketon's shaft there is little or no change in the appearance of the lode at the 155 since last week; now it is between 2 and 3 fms., producing fluor spar, with spots of munda and copper ore. All the machinery throughout the mine is working very satisfactorily. In consequence of the weather the masons are making slow progress with building the house for the 25 in. winding-engine.

SOUTH PENRITHAL.—S. Davey, Dec. 21: Walton's Engine-shaft: In the last few feet sinking a horse of granite has come into the lode, which necessitates our leaving a portion of it standing to the south. I found to-day in the fissures of the rock, or horse, some rich black oxide of copper, and am expecting better results from the lode when the clearing of the 70, west of Walton's shaft, is progressing satisfactorily. The ground in the floor of the shaft, sinking below the 130, is presenting a good appearance for the production of copper, several branches of quartz interspersed with munda and spots of copper are dropping into the lode from the south, clearly indicating a change.

TANKERVILLE GREAT CONSOLS.—Arthur Waters and Son, Dec. 23: Tankerville Mine: The 232 east, on main lode, shows a vein 2 1/2 ft. wide which is very hard and wet, the matrix being calc spar, in which there are good stones of lead ore. We expect to meet with a big cavity here shortly connected with which a much more productive lode may be expected. The 232 west is in a lode 4 ft. wide, carrying the lead ore of ore worth 15 to 20 cwt. per fathom. The 232 east, on north lode, is opening out a strong vein, composed of spar and saving stuff for lead ore, and the general condition of things points to an improvement here soon. The 232 east, on this lode, is getting into the dip of the ore ground seen in the level above, and we are expecting to cut into something good in the end every day; present value of the lode 1 ton per fathom. The winze in 220 west, down within about 10 ft. of hoing to the 232, is opening tribute ground worth 15 to 20 cwt. lead ore per fathom. The stope in said level, east of shaft, is worth 25 cwt. per fathom. The winze in the 220 east, on main lode, is going down in the level, lode worth 2 tons of lead ore per fathom. This is in front of the 232 end. The winze in this level, west of shaft, down 5 fms. 3 ft., is opening up a strong sparry, ore vein of a promising character. The 100, east of cross-cut, on south lode, shows a vein of considerable promise, worth to-day 3/4 ton per fathom, going away into new ground. Other points as for some time past.—Potter's Pit: Owing to recent floods of snow and rain the water has driven us out of the deep workings here, and, therefore, away from the rich ore deposit. When dry weather comes this difficulty will speedily be removed.—Pennerley: The 120, on Warm Water, shows a vein coming in of the wide lode seen in the 80; the vein in the roof is 5 ft. 6 in. wide, and is composed of spar and good solid lump of galena. The stope in back of this level will soon prove the value of the ground in question. The 80 west is not in so wide a lode as when reported on this day week, a horse of slatey rock having come in to cause the change; still there is a rich bunch of ore in the forepart, worth 4 to 5 tons per fathom. The lode in the back and bottom of the level, immediately behind the end, shows in places solid ore stuff, worth 8 tons per fathom. The other stopes in back and bottom of this level are quite up to the value set on them in our last week's report. No change to notice in the 100, west of the level, where the men are in good order, and the deepening of the engine-shaft goes on fairly well; present depth below the 175 being 3 fms. 1 ft. 6 in. The 175 west, on Middle lode, is cleared and secured 60 fms. 4 ft., and the men are pushing on to the end. The same level, east of junction, on south lode, is cleared, &c., to the end and the ground opened for tributers. The 163 east, on Middle lode, as well as on south lode, is in good order to the ends, and tributers at work at various points. The tribute department generally is yielding lead ore and blende quite up to late reports. You shall have a full report on all the mines next week. The samplings take place on Thursday next.

TRESEVEAN.—J. Prisk, W. Edwards, Dec. 15: The following is a report in detail of the principal work done in the above mine during the past 17 months, from the commencement of operations. Underground: The deep adit, which is 60 fms. deep in the western part of the mine, has been cleared and secured for about 1 mile in length. Several shafts on its course have been re-timbered and put in perfect order, and the drainage of all surface water is complete and inexpensive throughout the entire property.—Engine-shaft: This has been newly collared, additional timber fixed where required, and put in perfect order for the reception of the 16 in. pitwork. The mine is being drained for over 1 mile in length, and the water is being raised to the surface by a pump, which is now in full operation. The 115 fms. below the surface. The pumps at present are lowered as deep as the 55, and in a day or two will be sent to the 65, when the draining will again be going on rapidly. The main rods are down to the 50, and at the 30 a 16 in. plunger lift has been fixed, which discharges the main stream of water to the adit, where a 12 in. plunger lift has been fixed for the purpose of pumping condensing water for the several engines, and which is also utilised for dressing purposes. An excellent ladderway has been fixed, and everything in the said shaft been carried on with a view to the permanent and profitable working.—Old East Shaft: This shaft has been newly collared, and is in perfect order for fixing the shaft road, which we intend doing as soon as convenient. This we consider will be one of the principal drawing shafts for the deep working of the mine.—Old Footway Shaft: The ladders have all been put in perfect order, and traversing ladders cleared as deep as the water is drained; this is intended for the main ladderway for the eastern part of the mine.—Tweek's Shaft: This we have newly collared and put in good condition, also erected temporary drawing appliances, which enabled us to discharge the water from the tributaries working on the old lode, and from Gooch's lode, which has, in the last three months, been made with in the shallow adit, which is about 20 fms. below surface. A cross-cut has been cleared north from the old lode about 25 fms., and after making some explorations, we are pleased to say we discovered a new lode, which we named Gooch's lode. We have driven east and west on its course for about 5 fms., and for some part of the drivage it was worth 30 ft. per fathom; at present it is worth 13 ft. per fathom. Since discovering this valuable lode in the shallow adit we have been busily engaged in exploring it, and in the deeper levels, and by making other explorations we are happy to report we have recently found it in the deep adit about 40 fms. west from where it was cut into at the shallow adit. We are not yet in a position to fairly open on it, but, as far as we have seen, it is 2 ft. wide, regular, and well defined, containing good work for tin. For your guidance we beg to say this lode is about 25 fms. north of and parallel with the main lode, with about the same underlay, and stands intact the whole length of the set, consequently may be deemed a grand discovery.

Every exertion will be made to open on it at the deep adit as rapidly as possible.—William's Shaft: This we intend to use for the discharge of stuff from the western part of the mine, and we have recently cleared and well secured it with timber from surface to the 25. We hope in a short time to reach the 30, or shallow adit, where we expect to find it clear and in good condition, after which we shall shortly be in a position to set a good number of tribute pitches on copper and tin in the several levels as far as the water is drained, which, we think, will make profitable returns.—Wheal Boys' Shaft, Caddy's Lode: The deep adit level has been driven east and west of cross-cut 6 fms.; the lode is 5 ft. wide, and worth 12 ft. per fathom, and improving as we advance. For a considerable distance east and west of the said shaft the deep adit was driven on a south part, and to intersect the lode above referred to a cross-cut has recently been driven north about 5 fms., and, seeing but little has been done to the west of the shaft on this lode, this may be considered a good discovery, and a point of great interest, as every fathom driven in the end opens a great number of fathoms of stopping ground. The lode in the stope in the back of the deep adit, on the south part west of shaft, is 4 ft. wide, and worth 8 ft. per fathom. For the information of all the shareholders, we beg to state that the said shaft (Wheal Boys) was sunk by the former workers 20 fathoms below the deep adit on the south part of the lode, and the north part, which is producing the tin in the shallow adit, has not been intersected at the bottom level. We intend shortly to drain the water to the bottom of the shaft, which is about 80 fms. from surface, and cross-cut north to intersect the tin part of the lode, where we hope to open up a very considerable quantity of stopping ground. The pumps are said to be in the shaft, and the portable engine now in use for winding is sufficient power to drain and keep the water. The lode in No. 1 stope in the shallow adit is worth 12 ft. per fathom. No. 2 stope is worth 18 ft. per fathom. We have six pitches in this part of the mine being worked by 15 men at 13s. 4d. in

17.—Michell's Shaft: This is at present being put in order for the purpose of making a footway, so as to have proper access to Caddy's lode eastward, where there is a large quantity of tribute ground available for tin and copper.

HIGHWAY.—This is sunk 27 fathoms below the deep adit on a cross-course, and is about midway between Caddy's and Gooch's lodes, consequently, for a small expense, can be made available for the discharge of stuff from Caddy's lode eastward and Gooch's lode at the deep adit. This will be put in order as quickly as possible. The machinery purchased and erected in the last seventeen months consists of one 90-in. pumping-engine, two 12-in. cylinders for working steam capstan, one 32-in. rotary-engine for stamping, and 24 heads of stamps (12 others are in course of erection), one 14-in. engine, a rockbreaker, and one large double-acting rotary-engine for winding adit, and Gooch's lode. There are also on the mine two 24-in. winding-engines for the deep working, and the house for same is now in course of erection. The above are of the most modern manufacture, and are working well.—Dressing Floors: A considerable amount of excavations have been made here, and eight round buddles and one hand buddle, with other appliances, fixed for dressing tin. We have also built a large burning house, containing two ovens, tin yard and tin house, which will now enable us to go on making regular monthly returns. It will be seen by the foregoing that the great outlay required in starting a mine of this magnitude has already been made, and in future the cost will not be so heavy, and good sales of tin will be made to assist the monthly expenditure from Caddy's and Gooch's lodes, which we consider will in future be worked at a fair profit. In conclusion, we are proud to say the prospects far exceed our expectations, and as the draining progresses on the old lode and the side lodes are rapidly developed, there is not the slightest doubt that the mine will produce immense wealth, and the shareholders be well paid for their spirited outlay.

TREVAUNANCE UNITED.—Wm. Vivian, Dec. 23: In the cross-cut driving south at the 55 we continue to meet with branches of munda, but have not yet intersected the lode. Our tribute ground continues to produce its usual quantity of tin.

WEST CRAVEN MOOR.—D. Williams, Dec. 27: The new cross-cut from Blackhill adit level, to reach and unwater a series of well-known and productive lodes, is in 10 fathoms; I may add that we have already passed through several branches of spar intermixed with spots of lead ore. A winze west of New Blackhill shaft, under Ashworth's workings, is down 8 fathoms, in a lode 4 ft. wide, composed of gossan, spar, and lead ore, worth 20 cwt. per fathom, wrought at 90s. per ton of dressed ore. The 30 has been extended 10 fathoms east of new east shaft, in a lode 2 ft. wide, and producing 10 cwt. of lead ore per fathom, wrought at 90s. per ton of dressed ore. A stope in back of level worth 15 cwt. of lead ore per fathom, wrought at 90s. per ton of dressed ore. We have a good parcel of ore ready for smelting.

WEST CREBOR.—J. Andrews, Dec. 27: The engine-shaft is now down 15 fms. below the 50, which is the required depth for a 65 fm. level; but before we shall commence to drive east and west at that level we shall sink the shaft 3 or 4 ft. deeper and case and divide the shaft, and bring the skip-rod down from the 50 to the 65 fm. level. There is no change in the 50 west during the past week.

WEST DEVON GREAT CONSOLS.—George Rowe, Dec. 27: There is no particular change in the character and value of the lode in any point of operations during the past week.

WEST HOLWAY.—R. Rowlands, Dec. 23: We are now sinking a sump in the 80 west, where the lode looks well. The driving at the 110 level east has a promising appearance, and we find both lead and blende as we advance. The lode in the 125 is worth 1 1/2 ton of lead per fathom, and looks well. At Ram's shaft the lode is of the same character and composition as last reported, and has increased in width to 1 1/2 ft. wide, and only gives us good ventilation but will also lay open a large section of ground for stoping. We have not yet commenced cross-cut north of Frank's shaft, the men being still engaged clearing the western level, but we hope shortly to do so.—Wheal Rannome: The three stopes in the back of the 40 east are worth about 7 ft. per fathom each.

WEST WHEEL TOLGUS.—John Gilbert, Dec. 23: The lode in the 105, west of Richards' shaft, is 2 1/2 ft. wide, and yielding occasional stones of copper ore, but not sufficient to value. We have communicated the rise in the back of this level to the 65. We shall now get down the pitwork as fast as possible to commence sinking in the bottom of the 105. No. 1 stope, in the back of the 105, west of shaft, is yielding 3 1/2 tons of ore per fm. No. 2 stope in the back of this level is yielding 3 tons of ore per fm. There is nothing new in the cross-cut driving north at the 85, west of shaft. The water is gradually increasing underground, but all our machinery is in good working order, and keeping the mine thoroughly drained.

WEST WHEEL PEEVOR.—W. T. White, Dec. 27: There has no particular change taken place in either of our bargains since the last report. The engine-shaft has set the whole lift as a certain lift, at 26 ft. per fathom, to sink below the 60. The men engaged in driving the cross-cut north at the 48 west, in the cross-course, are making good progress, having driven about 12 fms. in six weeks; they have 3 fms. more to complete their contract, when we shall go through the cross-course and drive for the lode in settled ground, which we hope to cut in nine or ten weeks hence. This is an important point, as also is the cross-cut south and west of the cross-course at the 35, which is being driven with all speed. The ends and other bargains on the lode are without change.

WHEAL CRIBB.—F. Phillips, P. D. Holman, Dec. 27: Setting Report: To sink the new shaft below the 132, by eight men, stent 3 ft. at 15 ft. per fm. To drive the 132 cross-cut, south of No. 2 winze, by six men, stent the month, or cut the lode, at 9 ft. 10 in. per fathom; during the past week we have intersected a small branch, composed of capel, spar, and munda. To drive the 132, east of No. 2 winze, by four men, stent 2 fms., at 4 ft. 10 in. per fathom; the lode is composed of friable spar, munda, and stones of copper ore. To drive the 132, west of new shaft, by six men, stent the month, at 8 ft. 10 in. per fathom; this end has been driven 27 fathoms west of new shaft, and is opening out a fine section of good stoping ground. To stop the bottom of the 105. No. 1 stope, in the back of the 105, east of winze, by six men, stent the month, at 4 ft. 5 in. per fathom; the lode is worth 40 ft. per fathom. To drive the 105 cross-cut south, by four men, stent the month, at 8 ft. 15 in. per fathom; here we have placed two additional men to force this point to prove the south ground. To drive the 105 cross-cut north, by six men, stent the month, at 7 ft. 10 in. per fathom. To stop the back of the 105, by four men, stent the month, at 3 ft. 5 in. per fathom; the lode is worth 15 ft. per fm. To rise and stope in the back of the 95, by four men, stent the month, at 5 ft. per fathom; the lode is worth 18 ft. per fathom. To rise in the back of the 105, by four men, stent the month, at 8 ft. per fathom; the lode is unproductive. To drive the 72, east of new shaft, by four men, stent the month, at 6 ft. 5 in. per fathom; the lode is composed of capel, spar, and munda. To drive the 48, east of new shaft, by four men, stent the month, at 6 ft. per fathom; the lode is 4 ft. wide, intermixed with spar, munda, and stones of copper ore; the kilas is very congenial for the production of mineral. To rise and stope in back of the 48, by two men, stent the month, at 3 ft. 5 in. per fathom; the lode is worth 20 ft. per fm.—Tribute: A pitch in the back of the 48, west of new shaft, by four men, at 11s. in 12, for copper ore and 7s. per ton for munda. To work the halvaun, a sufficient price, at 11s. in 12, for copper and munda. We have commenced to draw the ore from the new shaft to the crusher-house. We are pleased to say we are able to draw and crush at the same time.

WHEAL HONY AND TRELAUNY.—William Hancock, John Pearce, Hubert Lanyon, William Derry, Dec. 27: Smith's Shaft: The men are engaged driving lift below the 105. Lode in the 105 improved; worth 1 ton of silver-lead ore per fathom. Lode in rise worth for its length (12 ft.) 25 ft. per fathom. Derry's shaft is down about 6 fms. below the 55. Although we have a little water to contend with, fair progress is being made in sinking. Dressing and other surface work progressing favourably in spite of the inclement weather.

WHEAL JANE.—J. Reed, Jas. Donald, Dec. 27: The great flat lode in the stope in the back of the 70, west of Tremayne shaft, is worth 12 ft. per cubic fm. for tin. The part being carried is about 6 ft. wide, and is in whole ground to the level above. There is no change to notice in the 70 cross-cut, north in the north part of the lode; it produces saving work for tin. Ready Money Lode: In the 16 driving east of cross-cut and Gilbert shaft, the lode is 5 ft. wide, and worth 10 ft. per fathom. In the stope in the back of the level behind the driving the lode is 5 ft. wide, also worth 10 ft. per fathom. In the bottom of this level the lode is 8 ft. wide, and worth 10 ft. per fathom for the breadth of the lode. The men are engaged taking down the north part of the lode to make room to fix tackle preparatory to sinking a winze. We intend to resume driving west from cross-cut as soon as the stuff in the level is cleared. This lode is standing intact at least 1/2 mile to the west. It has proved very productive in the adjoining shaft. In the 16 driving east of cross-cut and Gilbert shaft, the lode is 5 ft. wide, and worth 10 ft. per fathom. The lode will be cut when the 30 cross-cut strikes the lode in a month from this time. Fair progress continues to be made in the drivage. All surface operations as being pushed on as fast as possible.

WHEAL PRUSSIA AND CARDREW UNITED.—J. Pryor, Dec. 23: There is no change to notice in the respective bargains since the last report. Saturday next being pay and setting day a full report will be sent next week.

WHEAL UNY.—Wm. Hambley, Wm. Prophet, James White, Dec. 23: Setting Report: Hind's Engine-Shaft: We have not made the progress that was hoped, and even looked for, in the commencement of the month, but considering the quantity of water pumped, and the great depth of the pitwork to keep in order, the men have done fairly good labour, and we are pleased to say the shaft is now down 10 fms. below the 182. The 182, to drive east of shaft, at 3 ft. 10 in. per fathom, and worth 12 ft. per fathom for tin. A stope in the back of the above level set at 2s. per ton of stuff, worth for tin 13 ft. per fathom. The 182, west of shaft, is set to six men, at 6 ft. per fathom; the lode is the full size of the end, and worth 5 ft. per fathom for tin. We have taken the men from the rise in the back of this level, and put them to sink a winze in the bottom of the level above, which is now down 4 fms., and in four weeks from now we hope to communicate the 182 with the 170; when done it

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FOR COPPER, TIN, LEAD, &c., apply to—
MESSRS. PELL, BOYLE, AND CO.,
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ASHES, TERNE ASHES, AND ALL REFUSE CON-
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OLD METALS of EVERY DESCRIPTION PURCHASED for CASH.

The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, DEC. 29, 1882.			
IRON.	£ s. d.	TIN.	£ s. d.
Pig, G.M.S., Clyde...	2 10 0	English, ingot, f.o.b...	97 0 0
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REMARKS.—Owing to the Christmas holidays, there has been very little business doing in metals, and the changes that have been made in prices have for the most part been unimportant. However, the few working days that have elapsed since the vacation have been sufficient to restore the trade to its ordinary routine, and thus nothing except the usual influences which affects trade stands in the way of interfering with the carrying out of business with the turn of the year. The changes which have taken place this week have been so trifling that this review may be briefly summed up, reporting the markets in a very similar state as recorded last Friday; but with the close of the week we are brought to the end of the year, so far as business is concerned, and it is interesting to look back upon the past and see the various changes which have been made, the profits and losses which have been effected, the times of briskness and the seasons of depression; but these we leave to be fully reported upon in our annual review next week; and now, in wishing our readers a very happy and prosperous New Year, it may be a matter of more interest to briefly consider the prospects of the ensuing year, which, although they should not be viewed with too much confidence are nevertheless not without some good promise, and there exist many events which bid well for the future trade. To start with, the weather is mild, and forms no impediment to trade. Stocks are in some instances less than they were a year ago, prices are moderate, and ought to stimulate trade, money is not dear, and political affairs are quiet, and besides which there is every evidence of growing trade requirements. Hitherto shipments of some metals have not been so good as could be desired to certain parts of the world, and therefore room is left for increased exports later on. The tone, taken on the whole, is fairly satisfactory; and, although shaken to some extent by recent trade difficulties, is at the same time only slightly depressed, and may not unlikely continue to further recover as the various favourable features become more pronounced.

COPPER.—Scarcely any business has been done in this metal, and prices in consequence have remained nominally unchanged. The legitimate and the speculative demand have been equally quiet, but, notwithstanding the general indisposition shown by buyers in making purchases, there has not been much anxiety manifest to press sales, thus signifying that holders do not view the future as altogether unpromising, but on the contrary seem to think there is little probability of prices receding. The statistics, which will be published next week, may not unlikely influence the market, but should they show inferior deliveries it can easily be accounted for by the very limited business doing during the past week. At the same time the deliveries during the earlier part of the month were reported very fair, and hence the statistics may not perhaps be altogether unfavourable, and in addition to this the Chile charter for the last half of December may also have some effect upon prices.

IRON.—The trade at the various manufacturing centres this week has been almost at a standstill, several of the works having been closed throughout the whole week, and many others being only partially occupied. Orders have been noted only for their absence, and hence quotations have remained nominally without change. With regard to pigs, however, there have been some slight fluctuations, at least so far as Scotch warrants are concerned, the demand for which has been dull, caused by a heavy fall in the trade last Friday. The sudden rise which this suspension caused was immediately checked, and prices the same day rapidly fell away to 48s. 7½d., and on Tuesday there was much quietude, sellers pressing sales from 48s. 3½d. to 49s. On Wednesday the market was steady, but prices easier, ruling between 48s. 9d. and 48s. 10d. Yesterday there was very little change, business being done from 48s. 11d. to 49s., while the closing figure for to-day and the year is 49s. Advances from Scotland show a favourable annual statistical return, displaying a total reduction of 50,000 tons in the production this year compared with last; an increase of 188,000 tons in the consumption, and 67,000 tons in the shipments, while in stocks there is a decrease of 104,000 tons. Business upon the Middleborough market is reported to have been very quiet, enquiries being very limited, and prices easier, to the extent of about 3d. per ton. Second-hand lots of No. 3 are offering at 43s., there being buyers at 43s. less, while makers' quotations rule for the most part at 43s. 6d., although in some few cases they are quoting merely from 43s. to 43s. 3d.

The shipments of pigs last week were 15,000 tons, and of manufactured 8500 tons. The stock in Messrs. Connell and Co.'s yards shows a reduction for the week of 280 tons, and now amounts to 99,543 tons. There has been very little done in manufactured iron, and prices for ship-plates are quoted at 87. 10s. for angles at 5½. 17s. 6d., and bars rule at 87. Reports from Wolverhampton state that there has been a fair enquiry for pigs, and Leicestershire, Derbyshire, and Northampton sorts are quoted at 50s., but sellers in some instances have at times given way and accepted 47s. 6d. Sheets are still in very good demand, doubling ruling at 27. 15s. to 27. 5s.; while consumers are quoted from 67. 7s. 6d. to 67. 10s., and medium qualities at 67. 15s. to 72. per ton. Very few transactions are said to have been carried through upon the Birmingham market, nevertheless all classes of iron remain firm in value, and, considering the season of the year, a moderate number of transactions have been carried

through. There is a very fair enquiry for sheets, and some makers are fully booked for six weeks ahead, while there are also a very fair number in hand for shipbuilding and engineering iron. Prices are unchanged for pigs, and there is a steady enquiry. The advices from New York of the 22nd inst. report no further fall in Scotch pigs, but business is still very dull, No. 1 Gartsherrie being quoted at 225.50, Glengarnock at 223, and Eglington at 222. Hematites are also unchanged at 222.50, but Cleveland pigs are 50c. cheaper, ruling at 220.50. Buyers of scrap and old rails are likewise very scarce, and both descriptions are reduced in value, being quoted at 228.50 and 228.50 respectively.

TIN.—The variations in this market have been of an immaterial character, and the business done has been confined within narrow limits. It is the great quietude which has prevailed in the speculative enquiry that has created such a lifeless appearance in the market, and this inanimate condition has been the more marked since rapid fluctuations are of so usual occurrence in this market. The turnover has been very small, while only a moderate business has been done for consumption. The Dutch sale last Tuesday realised an average of 61½ g., equal to 94½. 10s. per ton, but this produced little or no effect upon our market here, for upon the re-opening of the market on Wednesday last prices were very steady, and there was no symptoms of eagerness manifested to make purchases, nor was there any desire shown to press sales. In fact, buyers and sellers both hesitated to make contracts, thus leaving the market nominally unaltered. To-day, however, while the market has continued to display its quiet aspect prices have been rather easier, and contracts have been entered into at further reduced rates.

LEAD.—This market has been dull, and the price of Spanish is 137. 5s. to 137. 7s. 6d., and of English 147. per ton. SPALTER remains quiet, ordinaries being quoted at 167. 2s. 6d. to 167. 5s., and special brands at 167. 7s. 6d. to 167. 10s. per ton. STEEL.—A very fair business continues to be transacted at unchanged prices.

TIN-PLATES.—Prices are still well sustained, and a moderate business is doing. QUICKSILVER.—The importers of Spanish have now lowered their price to 57. 15s., and secondhand parcels can be had at a trifle less. There has been a gradual fall throughout the year, amounting in all to 10s. per bottle.

GOLD AND SILVER.—Messrs. PIRLEY and ABELL (Dec. 28), write:—There has been but little doing during the week in consequence of the holidays. The only arrival of gold to report is 94,500l. from the West Indies, the only shipment being 50,000l. sovereigns, from the Bank, for Lisbon. Owing to holidays in India the silver market has been quiet, and prices have receded, as orders for the Continent have not been very brisk, the arrivals from the Pacific and West Indies have been placed at 50d. per ounce standard showing a decline of ¾d. from our last week's quotation, but, at this rate, we think bars are steady. The arrivals comprise 27,000l. from the Pacific; 55,300l. from New York; 60,000l. from West Indies; 8700l. from East Indies=151,000l. The Bokhara takes 10,000l. to Bombay.

Very little business has been transacted in the MINING SHARE MARKET this week; the Christmas holidays extended till Wednesday, when the settlement of the usual fortnightly account commenced, and has occupied the chief attention of the dealers since. Quotations, therefore, remain about the same, and are, as they have been for some time past, mostly nominal, and not always to be relied upon, sellers wish to realise.

TIN has been without much change, and the standard for ore remains the same. In shares scarcely anything has been doing. Blue Hills are quoted at 15s. to 20s.; Carn Brea, 8 to 8½; Cook's Kitchen, 32 to 33; Dolcoath, 66 to 67; East Blue Hills, 7s. 6d. to 10s.; East Pool, 49 to 51; Killfret, 3 to 3½; New Kitty, 2 to 2½; South Condurrow, 9½ to 10; South, Frances, 7½ to 8; Tincroft, 6½ to 6¾; West Basset, 6 to 6½; West Frances, 8 to 9; West Kitty, 12½ to 13; West Peavor, 6½ to 7; Wheal Agar, 16½ to 17; Wheal Basset, 8½ to 8¾; Wheal Grenville, 7½ to 8; Wheal Kitty (St. Agnes), 1½ to 2; Wheal Peavor, 4 to 4½; Wheal Uny, 4½ to 5; Wheal Sisters, 1 to 1½; Wheal Consols, 3 to 4; Godever, 1½ to 1¾; South Penstruthal, 12s. 6d. to 17s. 6d.; Tresavean, 3 to 3½; Mounts Bay, 3 to 3½; Kit Hill, 3 to 3½; Drakewalls, 3 to 3½.

COPPER.—There is no change to remark upon here, and scarcely any business to quote. Bedford United, 1½ to 1¾; Devon Great Consols, 4½ to 5; Devon Great United, 3 to 3½; East Caradon, 1½ to 1¾; Gunnislake (Clitters), 3½ to 3¾; Langford, 9s. to 11s.; Marke Valley, 3 to 3½; Mellanear, 4 to 4½; Mona Consols, 1 to 1½; Mona, 4 to 4½; New West Caradon, 8s. to 10s.; New Caradon, 7s. to 9s.; Prince of Wales, 10s. to 12s. 6d.; South Caradon, 30 to 32½; South Devon United, 12s. 6d. to 15s.; West Caradon, 1½ to 1¾; West Crebor, 9s. to 11s.; West Seton, 18 to 20; West Tolgus, 15 to 17. Wheal Crebor, 2½ to 2¾; the 132 west has been driven 27 fms. at the new shaft, and is opening out a good section of ground to stope; the end is now worth 30f. per fathom. A stope in the bottom of the 120 east is worth 40f. per fathom. Sortridge, 4s. to 6s. Devon Friendship, 5s. to 7s. 6d.; the 15 west has improved, now worth 8f. per fathom, and producing good stones of tin; the 42 is worth 11f. The sale of copper ore (23 tons) realised 164l. 10s., or more than 7l. per ton. Parys Copper, 6s. to 8s.; the new discovery here continues worth 4 tons of copper ore per fathom. West Devon, 3 to 3½. Russell United, 3 to 3½; the lode in the 97 level west is still worth 7l. 10s. per fathom with good indications.

LEAD MINES are dull, and scarcely any business doing. Vans are quoted 5½ to 6; Great Laxey, 17½ to 18; Tankerville Consols, 5s. 6d. Roman Gravels, 9 to 9½; the sampling here is 250 tons of lead ore. East Roman Gravels, 10s. to 12s. 6d.; the mine is said to look promising, and has sampled another 10 tons of lead ore. South Darren, 10s. to 20s.; the 130 east is worth 15 cwt. of silver-lead ore per fathom, and the 120 east 1½ ton. Bwlch United, 15s. to 20s.; Goddard, 1 to 1½; Goredsd and Merilyn, 2½ to 3; Pennant, 4½ to 5; West Holway, 1 to 1½; Sinclair, 1 to 1½; Pen-yr-Orsedd, 1 to 1½; Coed-y-Fedw, 1 to 1½; East Rose, 3 to 3½; Old Shepherds, 18s. 9d. to 1 to 1½; Leadhills, 3 to 3½; Minera, 7 to 8; Frongoch, 1½ to 2; Goginan, 3 to 4; Grogwinon, 3 to 4; North Grogwinon, 3 to 4; Ystwith, 3 to 4; Gwern-y-mynydd, 1 to 1½.

FOREIGN MINES.—Akankoo, 3 to 3½; Alamillos, 1½ to 2; Almada and Tiritio, 3 to 3½; Anglo-African Diamond, 3 to 5; Broadway, 1½ to 2½; Canadian Copper and Sulphur, 3 to 4; Cape of Good Hope Diamond, 1 to 1½; Central Jagersfontein, 3 to 4; Cape Copper, 53 to 55; Chile Gold, 3 to 4; Colorado United, 1½ to 2. Cootacovil, 3 to 3½; the commencement of the crushing operations at the mine has been postponed for six weeks. Copiapo, 3½ to 4½; Devala Central, 4 to 4½; Devala Moyer, 4 to 4½; Fortuna, 3½ to 3¾; Frontino and Bolivia, 2½ to 2¾; General Mining, 5½ to 6; Indian Consolidated, 3 to 4; Indian Glenrock, 3 to 4; Indian Phoenix, 3 to 4; Indian Trevelyan, 3 to 4; Kapanga, 3 to 4; La Plata, 1½ to 1¾; it appears that no dividend has been declared at the directors' meeting this week, the clearing-up being postponed till the end of the year. The smelting statement for the week ended Dec. 23 shows that the 1098 tons of ore smelted produced 20,000 ozs. of silver. The value of the consignments was 6250l. Linares, 3½ to 3¾.

Mason and Barry to bearer, 15½ to 16½; Mysore Gold, 3 to 4; New Quebrada, 4½ to 4¾; ditto, Debutentes, 97 to 102; Nouveau Monde, 5-16 to 7-16; Panulillo, 6 to 6½; Rhodes Reef, 3 to 3½; Richmond, 6½ to 7; Ruby and Dunderberg, 1 to 1½; Scottish Australian, 2 to 2½; South-East Wynaad, 3 to 3½; St. John del Rey, 150 to 170; Tambachery, 3 to 3½; Tharsis, 37 to 38; United Mexican, 2½ to 2¾; Wentworth, 4 to 4½; Wynaad Perseverance, 3 to 3½.

Bratsberg, 1½ to 2½; Organos, 2½ to 2¾; St. John del Rey, 150 to 170; Victoria, 1 to 1½; Birdseye, 1½ to 1¾; Yuba, par to ¾ prem.; Placerville, 3 to 4; Colombian Gold, 3 to 4; Corporation of South Australia, 3 to 4; New Emma, 1½ to 1¾; Orita, 1½ to 1¾; Potosi, 9s. to 11s.; Tolima, 7 to 9; the gross returns for the month of October was 39,279 ozs. of fine silver, valued at \$51,554, and the cost \$19,679, leaving a profit of \$31,874, or 5312½. Western Andes, 4½ to 5½; the profit for October is returned at 1000l. This mine lays west of the Cordillera, Tolima being in the east. Michipicoten, 3 to 4; Eberhardt, 3 to 4.

The Market for Mine Shares on the Stock Exchange has been free from the serious depression usually regarded as inseparable from the week between Christmas and the new year, so that, although the amount of business done has been small, the position cannot be regarded as unsatisfactory, especially as prices have almost without exception been well maintained. Copper, tin, and lead are all low in price as compared with a few months since; but the downward movement seems to have now ceased, and there is a more hopeful feeling generally as to the prices that will probably rule during the coming year.

Our usual telegram from Cornwall this evening states:—During the past week the Cornish Share Market has been dull, and business

generally restricted. At a meeting of South Frances adventurers yesterday a loss on 16 weeks' workings of 3061l. was reported, and a debit balance of 3156l. A call of 15s. per share was made. At a meeting of the shareholders in West Poldice yesterday a call of 4s. per share was made. East Pool meeting is fixed for Monday next, when a 32s. 6d. dividend is expected. Carn Brea, 8 to 8½; Cook's Kitchen, 33 to 34; Dolcoath, 66½ to 67; East Pool, 58½ to 59½; Killfret, 3 to 3½; New Cook's Kitchen, 6 to 6½; Crofty, 9½ to 10½; South Frances, 8 to 8½; Tincroft, 6½ to 6¾; West Basset, 6 to 6½; West Frances, 7½ to 8; West Kitty, 12½ to 12¾; Agar, 16½ to 17; Wheal Basset, 8½ to 8¾; Wheal Coates, 4 to 4½.

In Indian gold mine shares there has been comparatively little business done, but prices have been maintained. The Cootacovil directors announce that in consequence of defects discovered in the machinery, necessitating the shipment of fresh portions from England, the commencement of crushing operations has been postponed. They hope to have everything in working order in about six weeks. The reports from the mine in other respects continue satisfactory. Indian shares generally are much affected by the absence of any record of practical results.

The South-East Wynaad Estates and Gold Mining Company notify the receipt of a telegram from Mr. Cooper, their mining engineer, that 78 per cent. of the gold actually known by assay to be in the pyrites has been extracted by his new mill, a result that gives a yield from pyrites alone of fully 7 dwts., and including the 3 dwts. free gold already extracted a total yield of 10 dwts. per ton of quartz. American mines are, it seems, likely to claim the attention of British capitalists in the immediate future. The Helena Daily Independent says:—"The Drum Lummon Mine is conceded to be one of the best mines on the Continent. The editor of the Salt Lake Tribune, himself an excellent judge of mines, who visited the mine a year or so ago, has the following to say of the famous Drum Lummon:—"On top of the ground it is the biggest and best mine that has been discovered since the croppings of the Comstock made the world crazy over 20 years ago."

The mining news from the Gold Coast is particularly encouraging. It is announced that the French Company had another shipment of gold by last steamer, and yesterday the directors of the Effuente Company also received one, which they have every reason to believe is the forerunner of regular remittances henceforward. Devon Great Consols, 4½ to 5½; the agent reports little alteration in the mine since last week. In the 190, west of Railway shaft, the lode is 4 ft. wide, and worth 2 tons of copper ore and 2 tons of mundic per fathom. Devon Great United, 3 to 3½; the rock-drills have been successfully started in the 120 east and west of Willeford's shaft, and good progress in driving will, it is expected, now be made.

Drakewalls United, 3 to 3½; the managers report that the various operations are being pushed on vigorously, and that the various branches of tin in that lode are increasing in value.

Kit Hills Great Consols, 3 to 3½; the managers and agents report that the main tunnel has been driven 126 fms. into the hill, and with 20 fms. further driving a vertical depth of some 35 fms. will have been attained, when it is expected one or more productive lodes will be cut. This main adit is a direct cross-cut to the whole of the mineral veins in the property. Good progress is being made with the rock-drills which have been at work during the past month. The mine is said to be well furnished, and there is about 300f. worth of black tin at surface and for sale.

South Devon United, 3 to 4; the manager reports that there is little change throughout the mine. Good progress is being made at both Martin's and Pickstone's shafts. The 110 fathom level is worth 10f. per fathom. The machinery is working satisfactorily.

Richmond, 0½ to 0¾; the week's run produced \$12,000, from 313 tons of ore, with No. 4 furnace. During the week the refinery produced 600 bars to the value of \$10,000. The superintendent's weekly report (Nov. 4) reports that the 300 south-east

The estimated traffic receipts of the New York, Pennsylvania, and Ohio Railroad Company for the third week in December amount to \$123,562, against \$111,399 for corresponding period last year, showing an estimated increase of \$12,163.

The interest due Dec. 30 on the debentures of the British and New Zealand Mortgage Agency Company (Limited) will be paid on and after that date at the Bank of Scotland, Edinburgh and London, or any of its branches.

The coupons due Jan. 1, 1883, of the Northern Central Railway Company's Six per Cent. Consolidated General Mortgage Bond will be paid on and after that date, either at the company's office, Baltimore, or Messrs. McCalmont Brothers and Co., London.

The Faure Electric Accumulator Company give notice that the subscription list for the 25,000 preference shares in the French Electrical Power Storage Company (Limited) will close this day (Saturday) the 30th for both London and the country.

The Municipal Building Society have declared an interim dividend of 5 per cent., and will recommend a further bonus at the rate of 1 per cent., making 6 per cent. per annum on all shares.

THE COPPER TRADE.

During the quarter ending Dec. 30, 1882, the quantity of copper ore, the produce of Cornwall and Devonshire, sold at the Cornish Ticketing, was 11,657 tons, which contained 669 tons 10 cwt. of fine copper, and realised 43,388*l.* 13*s.* 6*d.*, being equal to an average of 3*l.* 6*d.* per ton of ore, and 62*l.* 0*s.* 6*d.* per ton of copper in the ore. During the same period the British, colonial, and foreign ores sold at Swansea amounted to 2621 tons, which contained 284 tons 13 cwt. of fine copper, and realised 19,690*l.* 17*s.* 6*d.*, being equal to an average of 7*l.* 10*s.* 3*d.* per ton of ore, and 69*l.* 3*s.* 6*d.* per ton of copper in the ore. The average produce of the ore sold at Cornwall Ticketings 6 per cent., whilst that sold at Swansea gave an average produce of 10 13-16 per cent. From this it will be seen that the aggregate sales by ticket were 14,278 tons of ore, containing 954 tons 3 cwt. of fine copper, realising 63,079*l.* 11*s.* The subjoined is a summary of the periodical sales at the Cornwall and Swansea Ticketings respectively. The ores sold at the Cornwall Ticketings were—

Date.	Standard.	Prod.	Price.	Per unit.	Tons.	Fine cop.	Amount.
Oct. 5	107	9	0	8 1/2	46	5 6	14 <i>l.</i> 11 <i>s.</i> 4 <i>d.</i>
19	117	13	0	5 1/2	3	7 0	12 11
2	108	18	0	6 1/2	4	2 0	13 0 1/2
23	114	14	0	6 1/2	3	14 0	12 3 1/2
Dec. 7	92	1	0	8 1/2	5	3 0	12 0
21	108	2	0	5 1/2	2	16 0	10 11 1/4
					3020	155	7
							8,486 7 0

Total for the quarter	11,657	699	10	43,388	13	6
Quarter ending September, 1882	10,312	644	15	42,104	18	0
Quarter ending June, 1882	10,084	585	17	32,781	2	6
Quarter ending March, 1882	10,005	595	8	32,680	17	0

Total for the year, 1882	42,058	2525	10	150,935	11	0
Showing a quarterly average of	10,515	631	7	37,733	18	0
Corresponding quarter, December, 1881	10,212	659	3	36,745	11	6
Total for the year, 1881	39,383	2563	2	136,133	8	6

Date.	Standard.	Prod.	Price.	Per unit.	Tons.	Fine cop.	Amount.
Oct. 17	94	15	3	10 1/2	47	8 7	14 <i>l.</i> 13 <i>s.</i> 4 <i>d.</i>
Nov. 7	91	8	10	11 1/4	7	12	13 5 1/2
					1130	128	1
							8,615 18 6

Total for the quarter	2,621	284	13	19,690	17	6
Quarter ending September, 1882	1,227	85	4	5,688	11	6
Quarter ending June, 1882	1,227	85	4	5,688	11	6
Quarter ending March, 1882	970	91	19	5,676	5	0

Total for the year, 1882	4,816	461	16	231,235	14	0
Showing a quarterly average of	1,205	115	9	57,808	18	6
Corresponding quarter, December, 1881	2,012	225	6	14,055	6	0
Total for the year, 1881	19,717	1674	18	96,419	9	6

PESTARENA UNITED GOLD MINING COMPANY.—At the ordinary meeting of shareholders, held yesterday, the report and accounts were adopted. Mr. Henegave Taylor, who has just returned from the properties, gave some details of their working; but there have been no important changes since the report was issued. The falling off of 143*l.* in the profits is ascribed partly to the lower percentage ore treated, but principally to the Italian currency arrangements having adversely affected the company. From this cause the company is said to have lost over 2000*l.* in two years. A full report will appear in next week's journal.

ORGANOS.—The report just arrived shows that the machinery is in a forward state, and is likely to be entirely completed at an early date. Indeed, the next mail, it is hoped, will bring advices that everything has been finished, and that crushing has been commenced permanently on a large commercial scale. Meantime it will be seen that five head of stamps have already gone to work, and that a good crushing will be made by these during November, advices of which will be received at the end of January. The mine itself is reported to continue rich at all the more important points. The lode at Organos varies in quality, and contains from 1 to 10 ozs. of gold per ton, and should anything like this yield be assured upon crushing, as is anticipated, the company must prove successful.

ORITA.—Great confidence continues to be reposed in the ultimate success of the operations at these mines. The greater portion of the machinery has already been dispatched, and it will probably take six to eight months to erect and complete. The possession of a large quantity of water and a deposit of auriferous gravel many miles in extent and of a paying quality, would appear to render the success of this concern a certainty, the more especially as the adjoining property, which is working on a comparatively small scale, is doing well.

VICTORIA GOLD (Venezuela).—A battery of Sholl's patent pneumatic stamps have been purchased by this company, and is now in course of shipment for the mines.

SOUBACK AND CATIR ALAN.—It is announced that cases 252,3,5,6,7 have been sold by Mr. Claudet at the rate of 162*l.* per ton, and bag 254 at the rate of 147*l.* per ton. Mr. Austin has also informed the directors that he has discovered a new road from the mines which will enable him to ship a larger quantity of ore at a considerable reduction in the cost of carriage, and that the supply of ore is unlimited. The interest on the debentures to Dec. 31 will be paid on and after Jan. 3. The coupons must be left at the company's offices three days previous for examination.

SENTEIN.—It is reported that shares are being enquired for, and are scarce at the quotation, 17*s.* 6*d.* to 20*s.* The French people it is added are not of a speculative character, therefore English enterprise has been instrumental in proving the great hidden mineral wealth of the Pyrenees.

DEVON FRIENDSHIP.—The 15 fm. level (under adit) has greatly improved in value, and the 42 is better. There have just been sold 23 tons of copper ore at the high price of above 7*l.* per ton (164*l.* 10*s.*).

BRYNARIAN (Cardiganshire).—This mine, which bears a good reputation as a valuable sett, but which appears hitherto to have been worked to only a shallow depth, has, during the past week, been acquired by a new company, who intend to carry out the work commenced and all but completed by former owners at a heavy cost with the object of intersecting the Brynarian lode. It is stated that one-half of the first issue of 10,000 shares have been taken up and that the balance will next week be offered to the public through the advertising columns of the *Mining Journal*.

BRITISH.—The facilities for cheaply working these mines are said to be all that can be desired, the dressing-floors being only 100 yards from the Mineral Railway, so that the carriage of the ores from, and the materials to, the mines will be inexpensive. There is plenty of peat on the spot, which will save the cost of coal and slack, and natural advantages for deep working by adit levels. There are several lodes already discovered in the sett, one of them, the Great Newborough lode, has been proved by shafts and pits on the back for several hundred yards, and 30*l.* per fathom, and increases in value as depth is obtained. The sett is nearly a mile on the course of the lodes, and the rents and royalties are considered favourable.

HOME MINES AND THE METAL TRADE.—During the past three or four months, writes a correspondent, those interested in these had to suffer a gradual depreciation in values, in some instances to a very considerable extent, but without any justification for such lowering of prices, whether it be in the value of mine shares or in metals, and from all the information now at hand there are good reasons to believe that a considerable rise in marketable values will take place early in the coming year. It therefore behoves shareholders interested in mines, as well as capital-

ists holding stocks of metals or minerals, to hold on in the full expectation and belief that such improvement will take place at no very distant period. Whatever way this matter may be viewed, there are good grounds for believing that an important advance in nearly all metals and minerals is near at hand which, as a matter of course, will carry due weight in connection with an upward movement in home tin, copper, and lead mining shares.

ROYAL CORNWALL GEOLOGICAL SOCIETY.—At the annual meeting held at Penzance yesterday Mr. L. Courtney, M.P., presided. Several interesting papers were read—one by Mr. Frecheville describing the tin lode running through Dolcoath, Cook's Kitchen, Tincroft, and Carn Brea, known as main lode in the first mine, as Chappell's in the second, and High Burrow in the others. From it one-third of the tin raised in Cornwall was produced. The lode had been worked continuously for a distance of 2 1/2 miles, and in Dolcoath at a depth of 401 fathoms from surface, where it was the richest. Those four mines in the last 10 years had made dividends amounting to 277,000*l.*, the calls during the depression of 1875-9 amounting to 56,950*l.* In these mines 2500 persons were employed, 152,400 tons of stuff were dressed yearly, and 3,602,000 gallons of water pumped up. Mr. Frecheville gave it as his opinion that for hard work and skill the Cornish miner was unrivalled. There was in his opinion a long and prosperous future for the tin mines of Cornwall. From Mr. C. Le Neve Foster interesting notes on Aberllefenny Slate Mine in Merionethshire were read. The workings are carried on upon two beds. The principal one has an average thickness of 60 feet. As the sides of the valley rose to a height of 700 or 800 feet above the brook the bed can easily be attacked by adit levels. In 1881 the mine produced 4792 tons of dressed slates and slabs.

METALLURGICAL INDUSTRY IN COLORADO.—Just before leaving Denver I paid a visit to one of the greatest and most powerful smelting works in this country. The Grant Smelting Works are two miles and a half in an easterly direction from Denver, and are the property of Messrs. Grant, Eddy, and James, the first-named member of which firm has just been elected Governor of the State of Colorado. The large and profitable operations of the firm have rapidly brought them to the front, and have made them in the course of a few years one of the wealthiest and most prosperous firms in the States. Their works were formerly at Leadville, but were burned down in May, and, in consequence, the new works at Denver were commenced, and very rapidly completed. At the time Leadville was discovered the partners of this firm were poor men, so that they have lost no time in pushing to the front. The new works, which were commenced only last June, are furnished with very powerful machinery. They have eight water-jacketed smelting furnaces, 3 ft. wide and 8 ft. long, and three No. 7 1/2 Baker pressure blowers. They are driven by an engine (Corliss's) of 150-horse power, and are lighted at night by ten Weston electric lights. They are kept running without intermission throughout the week, Sundays included. The amount of ore consumed is 250 tons per day, and about 150 tons of coal, coke, and limestone. The works produce 1 1/2 tons of silver, 600 ozs. of gold, and 400 tons of lead per week. The old works at Leadville had a capacity of only 150 tons daily. The new works are built of iron, and one effect of their running has been to reduce materially the price of smelting. The machinery was built by Messrs. Fraser and Chalmers, of Chicago, and weighs over 100 tons. So expeditiously was it supplied that the whole of it was delivered in sixty days from the time of burning of the old works at Leadville. I am told that it is in contemplation to enlarge the works by adding two new furnaces. They are already the largest of their kind in the world, and a more interesting visit cannot well be paid anywhere than to these champion smelting works.—Correspondent of the *Bullionist*.

LONDON, BRIGHTON, AND SOUTH COAST RAILWAY.—Messrs. Everett and Son, of the Royal Exchange, have just issued a pamphlet on "The True Position and Prospects of the London, Brighton, and South Coast Railway Company," by Mr. J. Fraser, of Billiter-street. After analysing the accounts from 1868 to the present time the conclusion at which he arrives is, that the prospects of the deferred holders now are, to say the least, not very hopeful through much property chargeable to revenue being placed to account.

THE WEARDALE LEAD MINES.—Mr. W. B. Beaumont, M.P., lessee of the lead mines in Wardale, having failed to arrange terms with the Ecclesiastical Commissioners respecting royalty dues, has surrendered his lease, and closed all the mines. Lead mining is almost the sole occupation in the dale, and consequently the closing of the mines will cause much distress.

ST. PAUL'S PUBLICATIONS.—Canon Farrar's Life and Work of St. Paul, part 12, contains the conclusion of the chapter on Philippi, the chapter on Thessalonica and Berea, and the beginning of the eighth book treating of Christianity in Achaia. The illustrations are of the usual satisfactory character. Knight's Practical Dictionary of Mechanics, part 73, extends from Stamp-mill to Steam-engine.

TO SHAREHOLDERS IN INDIAN MINES.

A MINE MANAGER, recently returned from the Colar District, is willing, for a moderate fee, to GIVE RELIABLE INFORMATION regarding the GOLD MINES.
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CHARLES JENKIN.
"Herberton Advertiser" Office, Herberton, September, 1882.

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Brataberg, 38*s.* 6*d.* Indian Phoenix, 16*s.* 6*d.* Richmond, 48 13*s.* 6*d.*
Californian, 18*s.* Indian Trevelyan, 8*s.* Rhodes Reef, 10*s.* 6*d.*
Callao Bis, 16*s.* 6*d.* Kapanga, 15*s.* 9*d.* Ruby, 21*s.*
Carn Camborne, 16*s.* 6*d.* Langford, 9*s.* 6*d.* Scottish Mines.
Chile Gold, 15*s.* 6*d.* La Plata, 26*s.* 3*d.* Sortridge.
Clitters, 43 8*s.* Mounts Bay, 12*s.* Treavean 17*s.* 6*d.*
Colombian, 7*s.* New Kitty, 45*s.* Tamar.
Devon Friendship, 6*s.* 6 New W. Caradon, 9*s.* Tollina 4*s.*
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Notices to Correspondents

LAST WEEK'S JOURNAL.—An accident having occurred on Dec. 22, whereby several dozen *Mining Journal* wrappers (directed for last week's Journal), and forwarded to the General Post Office for the obliteration of the stamps) were destroyed, subscribers who did not receive their copy as usual will oblige by forwarding us complaint, when the omission shall be at once rectified.

Received.—"Amateur" (Paris)—"J.G.H."—"J.A.J." (Mieres)—"Shareholder" (Vireberg)—"Old Reader" (Redruth): You will find all the information in this week's Journal—"Shareholder" (Devon Great Consols) should apply at the office of the company—"T.B."—We have many matters on hand, which we hope to clear off next week.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, DECEMBER 30, 1882.

FATAL COLLIERY EXPLOSIONS IN 1882.

The second half of 1882 was more than usually free from explosions of a fatal character, and in marked contrast with the previous one. But taking the year altogether, it appears that 240 persons were killed by explosions, and in almost every instance there were influences in connection with the systems of working that were favourable for such catastrophes taking place. Shot firing and naked lights as usual have had their victims, and will continue to do so as long as such things are tolerated in mines in which seams of coal are worked that give off gas even in comparatively small quantities. It may, however, be said that the heaviest fatalities during the year took place in districts that were previously tolerably free from such occurrences. Durham, where an almost model system of working mines has been in force for many years, has the heaviest death list of the year from explosions. Of the 240 killed, Durham has to be credited with 123, Trimdon Grange taking the lead with a death roll of 74, Tudhoe following with 36, and West Stanley with 13. South Wales looked better in 1882 than usual, considering that in a considerable number of the mines naked lights are used and powder as well. The total for the year was only 17. At Blaenau, where four men were killed, the workings were considered unusually safe, so that naked lights were in general use. Warwickshire has been one of the safest mining counties in the kingdom, yet it had its visitations, owing to ordinary precautions having been neglected, for an engine and boiler was placed at some distance from the bottom of the shaft in the return air-way, which subjected the pit to great risk, and resulted in a fire. Recklessness on the part of the men was the cause of several deaths. An instance of this took place in August last at the Hollywood Pit, Silverdale, Staffordshire. Two men went into the workings, when an explosion took place by which both were killed. After the disaster both lamps were found open, and one of them, an overman, was found with his lamp top in his hand. In his pocket was found a pipe and some tobacco, and it was believed that he had taken off the top of the lamp for the purpose of lighting his pipe. The jury in this instance returned a verdict of "Accidental death," adding that the explosion took place owing to the wilful act of the deceased. September and October were fortunate months, for during them no fatal explosions took place; but November made up, for from that month there were two sad occurrences in different parts of the kingdom, and these were really preventable.

The first took place on the 6th of November, near to Mold, in Flintshire, at the Mae-y-greg Colliery. Two men, one of them a deputy, went to examine the working places, when the gas ignited, and both died from the injuries received. On examining the clothes of the fireman, in his waistcoat pocket there was found a tin box containing matches, whilst the other man who was killed had also loose matches in his pockets. The probable cause of the explosion, according to the evidence of the Assistant Inspector of Mines, was the lighting of some matches, and the jury, in returning a verdict of "Accidental death," said that greater care should be exercised by the managers of collieries respecting the use of lamps and matches in mines. The last explosion, and the most serious of the year, with the exception of Trimdon Grange, took place in Derbyshire, a county which, for several years past, has been particularly free from serious accumulations of gas and explosions. Advantage of this immunity from accidents resulting from gas was taken, and the pits, in one important district at least, were worked with naked lights. At last the wolf came when least expected, and an explosion took place on the 7th of November, killing 45 persons. As is so frequently done in ordinary cases where a misfortune takes place, it was decided that preventative means should be adopted in the future. The proprietors gave strict orders that safety-lamps only should be used, and against this the men have threatened to strike. At the present time, indeed, the men are still crying out for the naked lights, or more wages for the precautions that have been adopted for their own safety. It will be seen that, as we have before stated, naked lights and the use of powder have been the chief causes of the explosions that have taken place in 1882; do away with these, and explosions in mines would be comparatively few indeed, if they would not be altogether unknown in the future.

THE DEVELOPMENT OF IRELAND.

We have often impressed upon the Government not only the necessity, but also the duty of developing the industrial resources of Ireland as the great means whereby much of her present distress, and consequently unhappy condition may be ameliorated and improved. We have recognised the immense wealth of the mineral resources of the island and have lamented her manufacturing capabilities dwarfed and retarded by the absence of proper railway facilities and of British enterprise and capital. We have called for a Royal Commission, at the hands of the Government, for the purpose of examining upon the spot into the reason why the resources of our Sister Isle have not increased proportionate to other parts of the United Kingdom, and why there has been for many years past an almost total cessation of railway enterprise in her midst, and consequently undevelopment of her mineral resources. We are glad to see that within the past month or six weeks several of the Metropolitan and Irish press have endorsed our views and backed up our suggestion, and there seems at last to be every probability that a Royal Commission will soon commence its labours. We feel assured the most beneficial effects will result therefrom. Throughout this discussion we have persistently contended that, were the thousands of half-starved, but willing to work, peasants provided with permanent employ at anything like proper wages, contentment would soon take the place of anarchy and crime would soon cease. Our Irish Correspondent in his weekly reports to our columns has pointed out how rich in mineral deposits are certain districts of Ireland, and how they lack development for the want of English capital and railway communication. Facts we all know are stubborn things, and one fact is worth more than a whole bushel of arguments. The want of further railway enterprise in Ireland, therefore, will be at once seen when we state that the total length of railways throughout the whole of Ireland does not exceed that of one of the great English trunk lines. From the latest published returns the total length of the Irish railways was only 2441 miles; the nominal amount of capital raised in the construction thereof was 34,271,624*l.*; the gross receipts 2,636,277*l.* per annum; and the net revenue 1,153,175*l.* The poverty of this railway enterprise will be at once apparent when we state that the total capital invested therein is only about one-half that possessed by the Great Western shareholders of England, or the Midland, and only one-third that of the London and North Western.

In England the total number of miles of railway to the end of 1881 was no less than 18,175, or seven times more than in Ireland. The total English capital invested in railways was 745,528,162*l.*, or over 20 times that invested in Irish lines, and the gross receipts of the English lines 63,908,237*l.*, as against 2,636,277*l.* of the Irish lines.

In England, too, the various mining and manufacturing centres are being yearly developed by new railways, and the resources opened up by means of enterprise and capital. Our Midland districts find fresh outlets to the various ports, and thus an impetus is given to our manufactures. How can the Irish mines be advantageously worked, the great industrial and manufacturing resources developed and expanded, whilst the country is thus starved for want of railway communication? We repeat once more that the opinion of the most practical men—men who know the resources and the wants of Ireland—is that nothing can be done to give stability and prosperity to the national industries before railways have been greatly extended and pushed into districts which are at present as innocent thereof as the wilds of Africa or America. We trust that one result of the Royal Commission about to sit will be that Government will see its way to recommend the loan of some two or three millions for the extension of railways in that hitherto neglected kingdom. There are, of course, difficulties to be overcome in this expenditure of the national funds; but we cannot think so great a measure of practical relief would be seriously opposed, especially having regard to the important objects in view. The carrying out of these railways would provide work for hundreds and thousands of strong, able-bodied, and willing to work labourers who are now on the verge of starvation, and whose families live in privation and misery. We all know that emigration is the panacea which some are preaching as the cure for all the ills which afflict Ireland, but this is denounced by some of the leading press of that country, and there is much truth in what these papers assert. The Irishman of last week says:—"Let those who preach emigration as a cure emigrate themselves." Let their preaching be exemplified by practice if it be sincere. There is room enough in Ireland for double the number who now exist there, and for more than double that number if Ireland's resources were developed as they ought to be. Ireland is suffering, not because she has too many but because she has too few of her strong and hardy sons." It does seem hard and unnatural that families should be compelled to seek homes in foreign lands until every possible means has been adopted to provide work at home. Emigration may be all very well to an extent, but we make bold to state that if English enterprise and capital, backed by well-directed aid from Government, were employed in the development of the mineral resources, and national industries, and railways carried through the country, such national prosperity would soon set in that emigration would be regarded as a thing of the past, and in its place remunerative work provided for all anxious and willing to work.

PROPOSED NEW RAILWAY ROUTE BETWEEN LONDON AND SOUTH WALES.

Whilst the colliery proprietors, iron and steel manufacturers, and traders generally of the South Wales district must ever feel grateful to the Great Western Railway Company for carrying its main line through the whole Principality, connecting it with the Metropolis, there is hardly a merchant or tradesman of the present day but would gladly see the monopoly which that company still practically possesses broken up, and trade freed from many of the fetters which bind it. Monopoly is the bane, whilst healthy competition is the life, of trade and commerce. Fifty years ago South Wales gladly welcomed the Great Western Company as the pioneer of railway enterprise, and were content to gladly submit themselves to the evils of monopoly rather than the more serious drawback of no railway communication whatever. The South Wales coal field, and its large manufacturing centres, have been regarded as the "backbone" of the Great Western system, and such it still is to a great extent. Probably the colliery proprietors, the metal manufacturers, and traders generally would even now be very loth to discard their first love had their interests been watched and promoted as they ought to have been. But we know such has not been the case; and to the present day large districts have to submit to trade restrictions and heavy charges which can only exist where the most complete monopoly has been established. The Great Western authorities seem to have two systems of dealing with their passengers and traders. Where wholesome competition is found there trade is facilitated, and comparatively low freights prevail; but where no competition exists there is apparently no desire to provide for the expansion of trade, vexatious delays are of frequent occurrence, and passenger charges and goods tariffs are from 25 to 40 per cent. higher than in other towns where railway enterprise and facilities abound. True, of late years the Great Western Railway seems to have been more alive to its duty towards the colliery proprietors and traders of the district than they had hitherto been, and in one or two instances have very materially developed trade; but this has been the result either of direct competition or threatened invasion of their district rather than spontaneous action on their part.

A well directed effort is now being made to break once for all the monopoly under which the whole of South Wales labours, and judging from the success which has already attended the efforts of the directors of the new railway, and the cordiality and unanimity with which resolutions in its favour have been passed at the most important shipping places and the centres of manufacture, there appears every prospect of success. The proposed new line is, in fact, a revival of the Severn Bridge scheme, which, if carried out, would shorten the distance by some 50 miles between South Wales and the Metropolis, and open up important districts but sparsely served with railway communication. It has been launched by an altogether independent company, of which Mr. Lucy, of Gloucester, is the chairman, and Mr. Riddiford, the solicitor for the bill. The promoters do not hesitate to state that it is to be regarded in every respect as a competing line with the Great Western, and its object is to endeavour to break up the monopoly which exists throughout the whole of South Wales. During the past fortnight, meetings in support of the scheme have been held in Newport, Cardiff, and Swansea, and addresses, explanatory of the scheme, delivered by Mr. Lucy and Mr. Riddiford. Resolutions in favour of the proposed new route were cordially passed, and influential committees of merchants and traders appointed in the various centres to strengthen the hands of the promoters in the ensuing Parliamentary campaign. The first section of the proposed new route commences with a junction with the Swindon and Cheltenham Extension Railway at Siddington, with running powers over that railway to the London and South-Western Company's system, terminating by a junction with the Midland Railway of Nailsworth, thence by running powers over the Midland and Severn Bridge Railways to Lydney Junction. Section 2 is a northern curve at Siddington Junction. Section 3 commences at Lydney Junction, and passing over Lintern and Usk, terminates with a junction with the Brecon and Merthyr Railway at Bassaleg, thence by running powers over the Brecon and Merthyr Railway to Caerphilly Junction, the Pontypridd and Caerphilly Railway to Pontypridd Junction, and the Taff Vale Railway to the junction of the Rhondda and Swansea Bay Railway at Treherbert, also over the Western Valleys Railway from Bassaleg to the Alexandra Docks, Newport. Sections 4 and 5 are to effect junctions with and running powers over existing lines of railways.

We need hardly state that the proposed new line will meet with the most determined opposition on the part of the Great Western Company before the Parliamentary committee, who, doubtless, will use every effort to perpetuate the monopoly which they at present possess. We know, however, that the tendency of Parliamentary railway committees is, and has been of late, to encourage competing lines through large populous districts and mining and manufacturing districts, being fully alive to the advantages to be derived therefrom. And if there is any foundation in the assertions made by the promoters of the new line, they have unquestionably good grounds upon which to ask for Parliamentary sanction for their competing scheme. As significant signs of the times, and as proof of the relief afforded to trade in the face of threatened competition, we find that the directors of the Taff Vale Railway Company have decided to make a reduction on locomotive charges of 10 per cent., which represent a saving to Cardiff freighters of no less than 15,000*l.* a year. Some five years ago a reduction of 20 per cent. was made in the same direction, so that within five years freighters have been relieved to the extent of between 40,000*l.* and 50,000*l.* in the shape of railway charges alone. The movement, too, in favour of the ship canal to Manchester seems

to have already produced beneficial results, the various railway companies carrying goods between Oldham and Liverpool having just decided to make reductions in the carriage rates of no less than 25 per cent. This will make a difference to Oldham alone of nearly 50,000*l.*, and the cotton spinners of that district will save about 25,000*l.* a year. If such beneficial results have followed even upon a threatened opposition, what may not the traders of the South Wales district expect if the Great Western monopoly which now exists was once effectually demolished? We repeat the colliery proprietors and large iron and metal manufacturers are vastly indebted to the Great Western Railway Company for having given them the advantages of railway communication, but the company have been amply repaid for any expenditure they may have incurred, and there can be no doubt had that company fostered and encouraged trade as they ought to have done, and been more reasonable in their freights, they would still receive the unanimous support of the traders instead of the general effort which is being made to break up the monopoly, and give trade the solid advantages resulting from wholesome competition.

THE ELECTRIC LIGHTING ACT, 1882.

Recent legislation having given such great facilities for the introduction of electric illumination, even in the most remote towns of the kingdom, and the light being popular with a large number of persons, and objected to by an almost equal number, an intimate acquaintance with the law is essential to almost every one, since there are few questions likely to lead to more animated discussions in a country local board or vestry than a proposition to substitute electricity for the present system of illumination; and when the more studious vestryman or local boarder can support whatever influence his oratorical powers may give him, by an appeal to the law of the matter, emphasising his argument by a fluent reference to decided cases the result can scarcely be doubted. The Electric Lighting Act, 1882, is essentially an Act for those connected with local government as much as for managers of electric light companies, and as it is scarcely to be expected that the non-professional reader can form an accurate opinion as to the views the judges are likely to take with regard to the interpretation of any particular section, an annotated edition is of great value to many besides lawyers. The law is at present as incomplete as the system of illumination to which it relates, and at the same time almost everyone is interested either in the mode of applying for powers or in opposing applications under the Act.

The provisions and application of the several portions of the Act are very carefully explained in the annotated edition just issued by Messrs. Higgins and Edwards—The Electric Lighting Act, 1882, the Acts incorporated therewith, the Board of Trade Rules, together with numerous notes and cases. By Clement Higgins, Recorder of Birkenhead, and E. W. Edwards, B.A., Oxon, barristers-at-law. London: William Clowes and Sons, Fleet-street—who append to each clause of the Act precisely such observations and suggestions as are likely to be required by the general reader, or by the solicitor who may be called upon for an opinion upon any particular point. The full value of the treatise can, of course, only be ascertained by experience in its use, but so far as can be judged from the perusal of it the annotations are judicious and well considered, and calculated to be extremely useful. The work is one which should be upon the bookshelves for ready reference of every local authority and electric light company. The notes are concise, but at the same time thoroughly explicit, and given in language equally intelligible to the professional and non-professional reader.

MR. CHAMBERLAIN, M.P., AND MINING REPRESENTATION.—An important correspondence has just taken place with Mr. Chamberlain, M.P., with regard to the Parliamentary representation of the collier and other mining classes. It appears that the right hon. gentleman's correspondent (Mr. David Morgan, Mountain Ash), catechised him upon two points—1st. What prospects there were of the early passage through Parliament of the borough and county franchise assimilating measure; and 2nd. Whether Mr. Chamberlain considered that it was desirable that the workmen in the industrial districts should be more directly represented in Parliament. Mr. Chamberlain's explicit reply is to the following effect:—"It is the earnest hope of the Government that the present Parliament will not separate without having dealt with the question of the assimilation of the borough and county franchise. As to your second query, it is plain that the answer must depend more upon the character of the men sent than upon the class from which they are taken. I do not doubt the advantage to the working classes of the presence in Parliament of such men as Mr. Burt and Mr. Broadhurst, who would do honour to any constituency; and if there are more men of the same stamp, who are willing to undertake the heavy labour of Parliamentary duties, I sincerely hope that their presence in the House of Commons may be quickly assured." The semi-official intimation contained in the first part of the communication is of the greatest moment to the mining communities of the country; it will mean the enrolment of very many thousands of Parliamentary votes which are now left unrecorded. And, as for the other portion of the letter, no one will grudge either Mr. Burt or Mr. Broadhurst the compliment which they have well earned. Both of them hold decided and emphatic views, but neither is a man of extremes, and their integrity and general intelligence cannot be questioned.

LORD DERBY AND THE REPRESENTATION OF THE MINING CLASSES.—Mr. David Morgan, Mountain Ash, has received the following reply from Lord Derby with regard to enquiries which he addressed to his lordship respecting direct labour representation and the assimilation of the franchise:—"Knowsley, Prescott, Dec. 23, 1882. Sir,—I have your letter of the 19th. I have neither the right nor the wish to advise you in the matter to which you refer; but I conceive that representatives in Parliament should be chosen with a view to their general efficiency and fitness rather than as persons pledged to defend the interests of one class in particular. As to your second query, I have more than once expressed myself in public as favourable to the assimilation of the borough and county franchise.—I remain, your obedient servant—DERBY." It will be seen from the tenor of the communication that Lord Derby is at one in his views with Mr. Chamberlain upon the points brought under his consideration.

MINING ACCIDENTS IN THE UNITED STATES.—An analysis of the mining accidents which occurred during 1881 in ten of the Western United States shows that they were thus distributed:—California, 116; Nevada, 62; Arizona, 12; Colorado, 7; Montana, 6; Idaho, 4; Dakota, 3; Oregon, 2; Utah, 2; Washington Territory, 1=225. These accidents resulted in the death (d.) of 176 persons; the serious injury (s.) of 68 others; and the slight injury (i.) of 75 persons. The distribution was:—California, d, 72; s, 31; i, 32=135; Nevada, d, 35; s, 28; i, 23=86; Arizona, d, 16; s, 7; i, 5=28; Colorado, d, 9; i, 4=13; Oregon, d, 5; i, 1=6; Montana, d, 8; s, 2=10; Dakota, d, 9; i, 8=17; Utah, d, 13; i, 1=14; Idaho, d, 8; i, 1=9; and Washington Territory, d, 1; giving the totals as above. These figures are given, and the various kinds of accidents have been placed in 26 classes by a gentleman in the office of Mr. del Mar, of San Francisco, and the compiler is certainly entitled to great credit for the elaborate way in which he has performed his somewhat laborious task. The cause of accident and the effect are thus distributed:—Explosions and blasts, d, 28; s, 18; i, 23=69; falls (except 14 below), d, 30; s, 11; i, 12=53; cave in mine, d, 33; s, 13; i, 11=57; prostration by heat, and suffocation by heat, smoke, &c., d, 13; fire, d, 6; s, 2; i, 3=11; asphyxiated, d, 3; scalded by hot water, d, 1; s, 1; i, 1=3; poisonous water and air, d, 4; caught in or struck by machinery, d, 8; s, 5; i, 12=25; struck by cage or bucket, d, 1; s, 7=8; fall of cage or bucket (14), d, 1; struck by falling rock, tools, logs, &c., or pieces of quartz while working (4 classes), d, 12; s, 4; i, 6=22; crushed by rolling boulders, between cars, between cars and side of shaft, or by rolling logs (4 classes), d, 7; s, 4; i, 1=12; run over by car, d, 1; s, 1=2; washed through flume, d, 4; i, 2=6; land and snow slides, d, 20; i, 3=23

and reason of accident unknown, d. 4; s. 2; i. 1=7: total, d. 176; s. 68; i. 75; as stated above. It will be seen that caves in the mine produce the worst results, then falls, next explosions, and after these land and snow slides. The author observes that although the number of accidents chronicled here may seem very large, yet he does not think that more than one-half of those which occurred in California and Nevada ever reach other than local papers, and that not more than two-thirds reach even the local papers. As to the other States and territories which are referred to, it is only when any very exceptionally dangerous or curious accident has occurred that it is ever heard of so far away as we are here in San Francisco. This year the papers have paid more attention to the item of mining accidents, but there is still great room for improvement.

OUR GOLD SUPPLY.

Mr. Brough Smyth, in his prefatory remarks on this metal, makes the observation that the knowledge of its occurrence in Nature is as yet quite in its infancy, and that at any moment discoveries may be made, even in Europe (where the geological conditions are best known) which may equal in importance those of Australia and California. This prediction seems likely to receive a somewhat unexpected fulfilment, except that the discovery in question is not a discovery at all, but a re-discovery of a source of the metal, well known of old, and which has simply lain dormant for fifteen centuries, and so passed, it may be said, out of memory. The new source, from which we may now look with certainty for a large addition to our supplies of the precious metal, is situated in the North-West of Spain, within 50 hours of London.

Pliny in his Nat. Hist. lib. XXXIII, Cap. 21, gives a long and most interesting account of the locality and the various modes employed in obtaining the gold; and as he was the Roman Procurator in Spain, and consequently visited "Astorga the Magnificent," the ancient capital of Asturias (a province which in those days comprehended a large part of what is now Leon and Galicia, instead of as now being confined to a narrow strip of seaboard), he speaks with the authority of an eye witness. The original Latin text is very corrupt, and being full of technical mining terms the passage has been omitted in most of the translations in Pliny's works as of sufficient importance or interest.

A brief retrospect of history will explain when and how this source of wealth was worked, and why, having been once discovered, it was permitted to fall into oblivion. The Phœnicians and Carthaginians worked these auriferous deposits for many ages, and when about 200 B.C. the Romans succeeded in making themselves masters of Spain they continued to draw from this spot by the aid of slave labour not less than 1,000,000 sterling in gold (20,000 lbs.) for upwards of two centuries. In fact the fixed determination of the Romans to possess themselves of the Spanish gold and silver mines was the origin of the Punic wars.

The Visigoths in the third and fourth centuries of the Christian era broke in on the Romans from the north, and by the end of the fourth century had destroyed the Roman power in Spain. The Moors from Africa then attacked the Goths, and finally driving them back to the mountain fastnesses of Galicia, made themselves masters of Spain by the year 700 A.D. From that date to their final expulsion in the sixteenth century under Ferdinand and Isabella they were engaged in perpetual wars with the small remnant of the Gothic power, which, secure in its hill retreats, swooped down on the fertile plains of Leon and Castille, making their possession as insecure as were the border marches of England a few centuries ago.

On the extirpation of the Moorish power a new era dawned for Spain; but precisely at that epoch came the discovery of Chili and Peru, with their extraordinary wealth in gold and silver. These were Crown monopolies; and lest they should in any way be weakened in value, the mining laws of Spain were profoundly modified by Philip II. (the morose builder of the Escorial), and by a royal decree dated 1604 A.D. all mining of gold and silver (the noble metals) was forbidden in Spain.

The decree remained in force until the present century, when on the Declaration of Independence May 25, 1823, Spain lost her American dependencies and with them her source of supply of gold and silver.

English capital, somewhat slowly at first, but rapidly afterwards, proceeded to develop the enormous metallic wealth of the South of Spain; and silver and silver-lead mines by the hundred have made the fortunes of thousands in the neighbourhood of the Mediterranean and on the Sierra Morena; but meantime the locality of the gold supply had faded from recollection, and situated as it was in a part of Spain which but for its metallic contents was utterly unattractive, chance did not draw any explorers to this part, which is in point of civilisation at the present day barely above the savage, offering no resources of food, lodging, or the most common necessities of life, to the traveller, while the climate, from its contiguity to the seaboard of the Bay of Biscay on the north and the Atlantic on the west, had a bad reputation for damp and cold with the inhabitants of the sunny south.

No wonder then that no one visited these wild parts which, except to the trout-fisher and the sportsman, offer but scant attractions, while the mode of conveyance, the mule-cart or the ass, is not calculated to attract the modern tourist. Even in Mr. Lock's new work on Gold, although the passage from Pliny is quoted in part, Mr. Lock confines his remarks to the Rio Tinto and the neighbourhood of Granada in entire ignorance of this vast gold field.

Some five years ago a French company obtained a concession for a railroad to connect Vigo and Corunna on the Atlantic with the main line from Madrid to Paris at a point near Palencia (the Venta de Banos junction). This line was traced on the one hand from Corunna to Sago and Oural, to which point it is now completed and open for traffic; and on the other to Leon, Astorga, and down the valley of the Rio Sil, and which is now open as far as Ponferrada (the entrance of the highlands), and will at the end of the current month be in working order as far as Puente Domingo Florez, the centre point of the "golden valley."

The line from Ponferrada passing down the Sil Valley was soon observed, by some of the engineers who were employed on the line, to be passing through a region showing many features in common with California, and it was found that, during the three or four hot months there existed among the peasantry an industry (as there does in Wales to this day on a small scale) of washing for gold in the streams.

It became a matter of common talk. Pliny, Polybius and Strabo were looked up; old traditions appealed to; energetic and systematic "prospecting" set on foot, and considerable funds were furnished from Santander and Madrid to carry out the explorations. The king made a visit to the locality.

The result of all these investigations is to establish the fact, beyond doubt, that an enormous auriferous tract exists, running from the east of Astorga some 80 or 90 miles westward and extending over a width of from 10 to 30 miles.

It bears a close resemblance to the hydraulic mining district of the American continent, being apparently the bed of some great antediluvian current, at a much higher level than the present rivers, and which now flow in a direction almost exactly contrary to that of the river or current which formed these enormous alluvial deposits.

As is usual in these cases, there are distinct layers or "benches" of varying contents and productiveness, the lower ones containing more boulders and less fine sand—while the upper plateaux are strewn over densely with masses of quartz, innumerable veins of the same appearing at the denuded surface. The works of which Pliny speaks, be they Roman or pre-Roman, are in the condition they were left fifteen centuries ago; and are on such a gigantic scale as to fairly awe and astound the beholder, though they may be said to have scarcely "scratched" at the auriferous deposits; so enormous is their extent; while the evidences of a hurried retreat, when the Roman legion at Astorga fled before the invaders and their own slaves at the ruins, who rose against their masters in concert with the Goths, are to be seen in unburied bones, tools, Roman coins, household lures and penates of gold and silver, and other objects, of which an interesting collection has been made at Leon.

The most important points, together with the water rights (for it

is well known that water on an auriferous deposit means gold), have been secured, in accordance with Spanish law, and a powerful company, combining Spanish interests with a very competent English executive, is being formed to carry out a systematic and well organised plan of hydraulic operations. A party of English gentlemen, well known as successful owners and managers of American hydraulic mines, have within the last few weeks visited the district, and, in spite of certain drawbacks (in the shape of personal discomforts endured), have returned with the highest appreciation of the capabilities of the ground for yielding its treasure to well-concerted water operations. Every "pan" of earth, tried from whatever part, was found to contain gold; and as the cost of hydraulic washing does not exceed 3d. per ton in the West of America, where wages are high and water has to be paid for at a large expense, while in Spain labour is good and cheap, and water costs nothing but the outlay for bringing it to the spot, there is no reason to doubt that these immense alluvial deposits which can only be estimated by millions of millions of tons, every ton of which is auriferous, will form a distinctly important source of gold supply for centuries.

REPORT FROM CORNWALL.

Dec. 28.—The year that is now closing has in many respects been a disappointing one. Twelve months since we had good reason to congratulate ourselves upon the prospects which then seemed assured; and while congratulating our readers upon the substantial improvement of 1881—a total advance on the tin standards of 18s.—we remarked—"We shall not be at all surprised if the present standards are not the lowest that will rule during 1882. Undoubtedly we expect a better substantial average." In this forecast we erred. Still we erred in good company, and it is quite certain that but for the manner in which speculation has disorganised the metal market we should not have been so far out after all. But we have learnt the lesson not to prophecy again, and shall content ourselves with the simple remark that since it is hardly possible for 1883 to be worse than 1882 we may hope that it will be better, and if the market is even governed again by really commercial considerations assuredly this will be so. Apart from the untoward course of the tin standards, we are not at all sure, however, that the balance of events has not been in favour of 1882. The exception is certainly a most important one, but still it is satisfactory to have something to set off. There has been a substantial improvement in the condition and prospects of many individual concerns. Dolcoath has proved more strongly than ever the richness of our lodes in depth; mining is reviving in districts where it had been all but extinguished; there has been a steady advance in many directions in mining plant and the adaptations of mining skill. There is no slackening in the race of progress and development in material conditions, and herein after all lies our surest ground for hope.

Though 1882 opened dull, yet the prospects continued fairly good, and we mentioned on this prediction that with a little better price for tin and the long looked-for improvement in copper there were enough mines in a progressive condition to double the Dividend List. Nor but for the already noted influences of market speculation as the year wore on would this expectation have been disappointed. As it is we have still to wait for such a desirable consummation. Dull as the year was in the first two weeks, on Jan. 20, there was an advance in the tin standard of 3d. Unfortunately, however, the following week rent the pendulum back again, and thus when January closed, whilst most of the progressive mines were opening out well, it was the subject of remark that mining property generally was selling under value. The downward tendency continued into February, and though for a while then stayed, again showed itself in March. A partial reduction was made on the 11th of that month followed by a partial recovery; but the last week of the month saw a decided fall of 2d., and on April 8 one of 3d., quickly followed by others. The market during this month was for the most part in a very unsettled state, the variation in the price of tin metal being as much as 20s. in one week. We say the price advisedly, not the value, for results such as these are of course far beyond the legitimate operation of the law of supply and demand. Still the course of the standards continued downwards; and the first reduction in May made a total fall on the year of just 19s., brought up to 21s. on the 8th. So much for the fulfilment of the promise of 1882, when a third of the year had passed away.

At length there came the long anticipated change in the tide. On May 25 the tin standards were put up 2s., and the improvement thus manifested was sustained through June into July, when a rapid upward movement began. Rise succeeded rise with pleasant regularity, and by the close of the latter month tin was within 5s. or so of the point at which the year had started. August did not however follow suit, and though, on the whole, prices were fairly maintained the month was a very apathetic one. September was far more favourable. Further advances were made and maintained, and the result was that when the month closed practically the lost ground of the nine months had been recouped. The first two weeks of October were the most satisfactory period of the year, but unfortunately no sooner had prices reached their height than they began to decline, and a reduction of 4s. in the standards on the 21st proved the precursor of a steady series of falls, which in less than two months brought the standards back to 88s., 92s.—a loss on the year of 14s. The drop of the year on English tin metal has been 17s., and the recent great failures in the tin-plate trade seem to forbid the hope of immediate recovery.

There is thus nothing to congratulate ourselves upon in the review of the tin standards; but it is singular that the course of the copper market has been more satisfactory, though it has hardly made itself apparent in the Dividend List. The tin prices of 1881 were better than those of 1880, and the prices of copper worse. The tin prices of 1882 are worse than those of 1881, and the prices of copper better. The early part of the year displayed little promise, though upon the whole there was a favourable tendency, which became more marked as time went on. The first Ticketing of the year gave a standard of 105l. 19s. for a produce of 5s., and the fluctuations of the quarter ending March lay between 10s. 3d. and 11s. 11d. per unit. In the ensuing quarter, though 10s. 3d. was still the lowest unit figure, the highest point touched reached 12s. 6d. The real upward movement commenced in June, at the first Ticketing of which the standard jumped up 5l. 10s. Still better times were in store in the ensuing three months, for the average unit price of the Ticketings of July, August and September was no less than 12s. 11d. Since Michaelmas, too, copper has held its own far better than tin. The highest unit figure of the year was reached on Oct. 5, 14s. 11d., and this is the highest point touched for years. The produce at the ensuing sale was 5s., the same as the Ticketing with which the year opened, and this improvement was shown in the fact that the standard was 117l. 13s. against 105l. 19s. Since then there have been various drops, and copper ends the year some 5l. per ton worse than it began.

The sales of copper ore show a decided improvement in quantity and price. In 1880, 40,311 tons were sold, realising 150,836l.; in 1881, 39,383 tons, realising 136,133l. The year under review has brought up the produce to 42,053 tons, not 300 short of 1880, and the amount of money has advanced to 150,975l. This is the result of the working of about 40 mines.

Concerning lead we have very little to say. There are no lead mines in the Dividend List now any more than there have been for the past few years; but there is far more activity and far more promise, and there seems very good reason to hope that 1883 will see some of the new ventures which are being so vigorously prosecuted paying dividends. Assuredly it is long since we have seen such excellent prospects.

Neither in Cornwall nor in Devon is there any special activity in the minor branches of mining. Our iron ores have not realised the hopes entertained of them; nor do blende and arsenic present any special features for comment. Special attention has, however, been directed of late to the argentiferous district in the vicinity of Callington. Large quantities of silver have been raised in that locality from time to time, and considerable enterprise is being shown in its development.

Our dividend mines have not increased in number during the year,

but there has been a very substantial advance in their returns, as the following table will show:—

Mines.	Shares.	Per Share.	Amount.
Dolcoath	4,296	£8 2 6	£ 34,905
East Pool	6,400	6 15 0	43,200
Gunnislake (Clitters)...	10,240	0 2 0	1,024
Killifreth	6,000	0 10 0	3,000
Mellaneer	10,000	0 8 6	4,250
Mulberry	26,506	0 0 6	660
Phoenix United	12,000	0 6 0	3,600
South Condurrow	6,123	0 16 0	4,899
West Basset	6,000	0 6 8	2,000
West Kitty	6,000	0 8 0	2,400
Wheal Crebor	12,000	0 3 6	2,100
Wheal Eliza	1,024	4 0 0	4,096
Wheal Grenville	6,000	1 0 0	6,000
Wheal Peevor	3,000	0 4 0	600

Total.....£112,734

This of course is independent of the yield of the Red River and of sundry minor concerns of a private character; and it is certain that the total divided profits of the year will nearly approach to 120,000l. This shows a very substantial improvement on 1881, but this will give as good a total in 1880.

Six of the mines that paid dividends in 1881 do not appear in the list of 1882—Blue Hills, Carn Brea, North Levant, Penhalls, Tincroft, and Wheal Kitty; and the new additions are Killifreth, Mulberry, Phoenix, and West Kitty. It would take very little at the present moment to add another half dozen at least. It will be seen that of the 14 dividend mines of the year only one is copper—Mellaneer.

A few figures about Wheal Eliza Consols will have a special interest. Up to June last the capital expenditure was 18,432l.; the labour cost 161,141l., and the merchants' bills 97,361l. Against this there had been received for tin sold 319,306l., and for copper 1016l. The result was that the shareholders had received up to that date 54,784l. in dividends—their capital returned three times over; and also had in dues 14,332l. Over a sixth of the produce of the ores sold has been profit and divided. About 40 tons of black tin are now being returned per month; 320 persons are employed, and 650 gallons of water are being pumped per minute. So little has been known of this remarkable mine that we are glad to have the opportunity of placing these trustworthy figures, with which we have been kindly furnished, in reference to enquiry, upon record.

The most remarkable feature of the year, in connection with operative tin mining, was the production by Dolcoath in 12 weeks of 500 tons of black tin—a feat wholly unprecedented, and one which would have been utterly impossible half a dozen years since. It is the most striking proof the county can give, not only of productiveness, but of the extent to which the improvement of plant has been carried. Without the rock borer and without the improvements made in our shafts and drawing gear such results would be impossible; and it is a most hopeful sign to see how steadily further improvements in these directions are being made. For the time the need of improvement in dressing appliances seems to have fallen rather into the background; but that again will have its turn ere long.

It is not easy to say whether 1882 has added or not to the number of mining ventures. More have dropped out of sight, and probably out of existence, than in 1881, and there certainly have not been so many additions as in that year. The number of mines officially reported upon by Mr. Frecheville in 1880 was 230; in 1881 it was 246; and do we believe that for 1882 the number will much, if at all, exceed 240. A very large proportion of these too exist only in name. We reckoned last December that of the mines then nominally in existence less than a half were in actual work. And in this respect matters have certainly not improved. In 1880 there were 46 mines with less than 10 hands, and 39 were with less than 20—85 in all. In 1881 there were 54 mines with less than 10 hands, and 23 were with less than 20—82 in all. But beyond this there was another score upon which no operations were being carried on, and which yet were still on the roll.

The amount of money directly invested in mining in Cornwall and Devon during the year has been considerable. The list of calling mines is a long one, and the new ventures help considerably to swell the total. Taken together there were at least 80 mines which made direct calls for capital, either as old concerns or new ones; and there were sundry others which would have been added to the list if accumulated adverse balances had been wiped off. The calling mines of both classes specified include Anderton, Bedford United, Cathedral, East Botallack, East Caradon, East Chiverton, East Wheal Rose, Cornwall Great Consols, Gawton, Herodsfoot, Wheal Peevor, Hingston Down, Killifreth, Marke Valley, Mounts Bay, Mount Carbis, New Cook's Kitchen, New Caradon, New Great Wheal Vor, New Holmbush, New Kitty, New Trumpet, New West Caradon, North Herodsfoot, North Penstruthal, Old Shepherds, Owen Vein, Pedn-an-drea, Prince of Wales, Silver Hill, South Dolcoath, South Penstruthal, South Tolcarne, South Crofty, Trebartha Larnar, Tregebo, Tresavean, Trevarren, Trevaunance, Violet Seton, West Polbreen, West Poldice, West Basset, West Caradon, West Devon Consols, West Crebor, West Godolphin, West Frances, Wheal Uny, Wheal Agar, Wheal Sisters, Wheal Jewell, Wheal Prussia, Wheal Silver, Wheal Coates, &c.

What the amount of calls may be in the aggregate it is very difficult to say. It is impossible that the nominal total can approach the actual. If we were able to state the real number of shares issued in all our mines the calculation would be easy; but as matters stand the data do not exist. A mine is launched, say in 100,000 shares; but what means have the general public of knowing how many of these shares are issued and how many are liable for calls. If we were to take the figures simply as they stand we should be driven to the conclusion that the new mines of the year have absorbed something like 450,000l., and that the calls in existing mines made up another 200,000l. But no one can accept figures like these as ever approximating the truth, and probably we shall be very much nearer the mark if we put the additional capital absorbed in the year at something like a quarter of a million, or between that amount and 200,000l.

Applying our usual test of the comparative selling prices at the end of the year of a batch of our older mines we got the following noteworthy results:—

	1878.	1879.	1880.	1881.	1882.
Carn Brea	£ 35,000	£ 62,500	£ 110,000	£ 150,000	£ 45,000
Cook's Kitchen	4,000	6,575	26,350	66,150	79,225
Dolcoath	128,800	240,575	244,372	382,344	290,033
Devon Gt. Cons.	17,920	66,560	164,040	87,040	56,240
Bedford United	3,000	9,000	11,583	20,270	21,503
Botallack	—	16,000	13,600	6,400	4,000
East Pool	60,800	147,200	230,400	288,000	320,000
East Caradon	2,500	18,500	12,288	9,216	9,200
East Chiverton	5,000	12,000	4,000	9,000	7,000
East Lovell	900	2,200	10,480	7,168	2,000
Glasgow Caradon	37,500	33,000	45,000	30,000	30,000
Gunnislake	18,000	19,760	40,960	43,520	35,840
Gawton	1,500	1,000	11,500	12,000	6,000
Killifreth	7,500	3,750	1,000	10,000	19,500
Marke Valley	6,750	15,000	18,000	13,000	4,500
Mellaneer	45,000	45,000	50,000	50,000	45,000
Penhalls	7,500	10,000	10,000	6,250	4,760
Phoenix United	—	60,000	30,000	39,000	30,000
South Caradon	30,720	40,108	33,280	18,320	16,500
South Condurrow	70,415	82,460	67,353	70,414	64,292
South Crofty	3,800	12,250	22,000	20,000	23,400
South Frances	33,750	49,500	51,000	72,000	51,000
Tincroft	54,000	102,000	126,000	111,000	37,500
West Basset	18,000	75,000	93,000	80,000	39,000
West Frances	7,500	24,575	22,528	35,840	16,351
West Tolgas	20,480	12,325	25,600	15,360	9,000
West Seton	5,400	30,000	22,000	12,000	42,000
West Peevor	2,250	18,500	60,000	43,500	22,500
Wheal Agar	25,500	39,000	37,500	84,000	105,000
Wheal Peevor	19,500	65,000	65,000	34,500	13,500
Wheal Jane	1,300	10,240	10,000	20,000	13,000
Wheal Kitty	6,400	11,750	19,428	2,150	7,500
Wheal Owsley	—	8,500	16,000	11,000	16,000
Wheal Crebor	3,000	45,000	60,000	51,000	32,500
Wheal Grenville	13,000	28,000	65,000	69,000	45,000
Wheal Sisters	9,000	17,500	12,000	15,000	7,500
Wheal Uny	2,045	5,150	18,432	14,336	20,500

Totals.....£717,400...£1,645,183...£2,000,794...£2,061,978...£1,595,031
Judged by this fairly representative test the value of mining pro-

perty has fallen back to the figures of 1879. It will be seen, however, that the reduction is not evenly distributed, and it must also be borne in mind that just now there are exceptional causes of dulness.

Mining grievances have, as usual, absorbed a certain amount of spasmodic attention; but have been very little, if at all, advanced towards solution. The two chief points in which reform is considered not only desirable but necessary, are, of course, the impact of mine dues, and the manner of disposing of mineral produce, especially of tin. In neither direction has anything really been done; but it certainly does seem in both directions as if a healthier and more decided public feeling were being created. The question of mine dues was forced into exceptional prominence by the treatment which the adventurers in South Caradon have received at the hands of their lords, whose fortunes have been made by the mine without trouble or risk, and who have behaved in a high-handed way that has called forth almost universal condemnation. If the policy pursued by the owner of the soil at South Caradon were at all widely followed—happily it is the rare exception—either Cornish mining would come to an end, or a change in the law would be demanded with one voice. The South Caradon differences are, of course, wider than the mere question of dues, and are, indeed, said to have been complicated by political if not personal considerations. But, as far as dues are concerned, we are happy to note that there is a steadily growing feeling in favour of the principle for which we have always contended, as the only one which is at all equitable or fair—the assessment of dues on profits only, coupled with an adequate rent for land occupied, and an adequate compensation for land destroyed. Reforms are slow in the west, but this one at least seems certain.

Special attention was directed to the question of the tin smelter's monopoly in various ways—lately, and most forcibly, by the pamphlet of "Republica," which, and the controversy caused thereby, will be fresh in the recollection of the readers of the *Mining Journal*. Our own position has always been that no mere modification of the existing system will relieve the mines of the pressure of which they complain, and that the only real remedy, at least for the large mines, is for them to undertake their own smelting, and send their metallic tin into the market instead of the prepared ore—that they should deal in white tin instead of black.

Many other suggestions have been made, and some have had a partial trial, but there has been no improvement. Ticketing has been proposed, in effect partially tried, but with just the result that might have been anticipated by anyone who bore in mind the clamour from time to time raised against the ticketing system as applied to copper. Then competition was promised, and for a time seemed to exist; but history has again repeated itself, and the select smelters' circle is understood to be once more complete without outside rivalry. Competition, so far as black tin is concerned, has, therefore, had but a brief life, and has now ceased to exist. It is, probably, far more due to the self-evident bearing of points like these—to the logic of facts rather than the logic of arguments—that the "home smelting" movement, as it was first called in this column, has of late received considerable accessions of strength. The one difficulty now is in breaking the ice; but we are convinced that when once any mine of importance leads the way—and it would be of no use for a third rate mine to try—there will speedily be plenty of followers.

We cannot say that the controversy between the rival advocates of the Cost-book and Limited Liability systems has made much progress. Probably it never will, on paper. Certainly, so far the results of Limited Liability mining operations in this district have not been such as to inspire much confidence. To this, of course, it may be retorted that Cost-book mining has not been immaculate; and there is no doubt that its principles have often been ignored or abused. Still, with all its faults, it is the Cost-book system that has enabled the country to weather the darkest storms, while too often Limited Liability has been found to break down just when a little more staying power would cause success to be won. It is not at all unlikely, however, that 1883 may supply us with more data to go upon, for the prospects of some of our existing Limited Liability concerns are undoubtedly of a very cheering character; and there does seem to be some way of adapting the principle to the peculiar conditions of mining enterprise. At least the causes of some of the instances of failure are now very clearly apparent. One of the greatest obstacles to the successful introduction of the Limited system into western mining hitherto has been the free and easy way in which it has been too often handled. There is a certain facility afforded for the getting up of companies which is very susceptible of abuse; and it is our experience also that shareholders in Limited companies are far too careless of their own affairs as a rule, and far less likely to take an intelligent and active interest in their welfare. Hence the downfall of many otherwise promising concerns. Of course, all this need not be, but, unfortunately, it has been.

Now and again during the year attention has been called to the unsatisfactory state of the labour market. Wages have advanced considerably, but the quantity of work done has not progressed in proportion, nor has the quality of the work at all improved. It is not easy to see how this can be met. When labour must be had it will maintain its price, and the only way of reducing that price is either the increase of the supply or the lessening of the demand. The dilemma is obvious. The supply of capable miners cannot be increased, the decrease of the demand can only effectively come by the reduction of operations. Whether tribute work might not be further extended than is now customary seems a point well worth consideration. We do not attach much importance to the operation of the Factory Acts upon the dressing-floors. This influence is annoying, but not really serious, and the extension of mechanism will be a real gain.

Railway development in the West is advancing with very rapid strides, and both a central and a northern railway extension into Cornwall are now authorised, and in part commenced, nor is this all. Every effort is being made to open up thoroughly all the mineral localities of the county, and to provide competitive railway communication at any rate as far as Truro. Moreover, Bodmin and Helston are no longer to be left out in the cold; and the Liskeard and Looe and Caradon system is to be extended and redeemed from its present isolation. A dozen years will see Cornwall fairly covered with railways, much to the advantage of those engaged in the development of her natural resources. The fact that the Cornwall railway has this year for the first time met its preference and debenture charges with a small balance to the good is a gratifying augury. There is a fair amount of railway extension also in progress in Devon, but our mineral interests are only affected by the extension into the Teign Valley, after many years of hope deferred; and by the rapidly approaching completion of the line from Yelverton on the Tavistock branch to Princetown.

Practically no progress has been made in the work of utilising the waste mineral products of the county. Outside the china-clay districts the potteries of Cornwall are even less prominent now than they were a few years ago; and this although Mr. E. Borlase has been steadily pursuing his experiments upon the neglected common clays and other plastic materials with which the district abounds, and has proved even the value for general potting purposes of such a very ordinary material as mine slimes. The case is quite otherwise in Devon where year by year the potteries grow rapidly, and where the art is being steadily pursued into new directions of utility and of ornament. There can be no doubt that what Devon is doing Cornwall might do; but no one with capital appears inclined to lead the way, and the china-clay trade absorbs all the energies turned in this direction. The output has been estimated at about 325,000 tons, but the exact figures are not easy to arrive at.

The attempts which have been from time to time made to utilise the immense deposits of peat on Dartmoor have been repeated during the year, and with the customary result—commercial failure. Great hopes were at one time entertained of the West of England Compressed Peat Company, which undertook operations on a very extensive scale, but which, unfortunately, has had to be wound-up. A fatality seems to attend this class of projects which it is not quite easy to understand. Many years ago the present convict prisons at Dartmoor, or rather the older portions of the buildings, were used

for the purpose of distilling naphtha from peat, and with a certain amount of success; but the results were not sufficiently encouraging, and all efforts to turn the peat to commercial account as fuel were doomed to like disappointment.

The local institutional record of the year is a very good one. All the local, scientific, and practical societies of Cornwall are in a flourishing condition. The Polytechnic has held its fiftieth exhibition, and celebrated its jubilee worthily and well in every department, keeping open for a fortnight instead of a week, and in spite of a very largely enhanced expenditure realising a very handsome credit balance, approaching 200l. The display in the mechanical department was not only the largest on record, thanks mainly to the untiring zeal of Mr. Frank Michell, but had a special interest in the happy manner in which it was made to form in it a record of progress in mining invention for the half-century. Canon Rogers has ably fulfilled the onerous duties of President during the jubilee year.

The Mining Institute, too, under the presidency of Mr. Husband, and with Mr. Rich as its secretary, in the place of Mr. Provis, whose retirement was caused by his leaving the county, has done, and is doing, well. The Exhibition at Camborne far surpassed in interest and utility all its predecessors, and the papers and discussions have been of quite exceptional value.

The Miners' Association continues in the most thorough fashion to fulfil the intentions of its founders, and the success gained by its students have been most gratifying. It has enjoyed the presidency during the year of Mr. Richard Taylor, and Mr. Beringer, the lecturer, has amply justified the choice made of him by the Council in succession to Mr. Benedict Kitto. In this connection, too, we should mention the very gratifying fact that both Redruth and Camborne, moving in honourable rivalry, have commenced the erection of schools of science and art, the foundation stone of the former building being laid by Mr. Tangye, and that of the latter by Mr. Husband. Specially good work may in the coming year be anticipated for both these centres. It will not be out of place to add here that the Plymouth Institution has just completed during Mr. R. N. Worth's presidency a very capacious and handsome museum, which will be conducted on a local basis; and that extensions are in progress for the city museum at Exeter; while Newton Abbot has held a very successful exhibition in aid of its schools of science and art, which have a very important practical bearing upon the development of the potteries in that locality.

The Royal Institution of Cornwall, at Truro, and the Royal Geological Society of Cornwall, at Penzance, are both following their useful careers with vigour, under the respective presidencies of the Earl of Mount Edgcombe and of Mr. Leonard Courtney, M.P. The Penzance Natural History Society is also in a flourishing condition once more, and that spirited town has likewise held a capital industrial exhibition.

Hopes are entertained that one or more of our local societies may benefit by the movement which has been so happily started to do honour to the memory of Cornwall's great engineer, Trevithick. It is, of course, too early yet to say what local form the Trevithick Memorial may be expected to assume; but it has been taken up most heartily in the county, and there is a very general desire that the due recognition of Trevithick's fame and vast public services shall be accompanied by something that will bear useful fruit in the future in the advancement of mechanical and mining science, and the progress of technical education and skill.

The obituary of the year is not a long one, but includes several names, and some of much note. In March Captain Maynard, of East Pool, died, and in the following month Mr. John Hocking, jun. In June, Captain Simmons, of Liskeard, for many years mineral agent under the Duchy, died; and this month Mr. R. F. Bolitho, of Penzance, has passed away. Mr. Roebuck, the resuscitator of the Perran Mines and creator of the Cornwall Minerals Railway, is another of the losses of the year (November). The most prominent are, however, Sir P. P. Smith, of Truro, so long connected with the Court of the Stannaries, and so sincerely respected by all sorts and conditions of men; and the venerable Lord Robartes, one of the most extensive mineral lords in the county, and whose liberality and benevolence were as proverbial as his wealth. He was the founder and sustainer of the Miners' Hospital at Redruth, and deeply loved and lamented by "one and all." His title and great wealth passed at his death, in March, to his only son and child, the present Lord Robartes, who has since then given abundant proof that he is following in his father's footsteps. The vacancy caused in East Cornwall by the succession of the present Lord Robartes to the peerage, was filled, after a stout contest, by Mr. C. F. Acland, the defeated candidate being Mr. J. Tremayne.

The casualties of the year have, fortunately, neither been numerous nor, as a rule, serious. A boiler explosion at Gunnislake (Clitters), in March, cost neither life nor limb. The most fatal casualty of the year occurred at Carn Brea in July, where, by an explosion of dynamite, three men lost their lives and several others were severely injured. As usual, a large proportion of the so-called "accidents" were due to the carelessness of the victims themselves; and in some cases, as in sundry deaths from riding in skips, arose from direct disobedience of orders.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Dec. 28.—The colliers are this week taking longer holidays than has of late been usual with them at this season of the year, and striking the average the pits will scarcely make more than two full days. The Cannock Chase colliery owners have a good number of orders on their books for domestic fuel, and steam coal is going away with much regularity. New contracts for blast-furnace and forge coal are anticipated at the Quarterly Meetings, which are fixed to come off in Wolverhampton on Jan. 10, and Birmingham on Jan. 11. Blast-furnace coal is now officially 11s. and 10s. 6d. per ton east and west of Dudley respectively, while good ordinary forge coal is quoted at 7s. to 7s. 3d., and 7s. 6d. per ton at the pit's long weight. Common forge coal raised on Cannock Chase is scarcely more than 6s. per ton long weight. Colliers' wages are now, according to the sliding scale, 3s. 8d. per day, or stint in the Thick coal seams, and 2s. 10d. per day or stint in the Thin coal seams in the Dudley district. Enquiries for foreign pigs continue fairly numerous, and when January has well come in these enquiries are expected to take the definite shape of good orders. Prices are, therefore, fairly firm. Northampton and Derbyshire pigs are quoted 47s. 6d. upwards, and Thornecliffe (South Yorkshire) pigs 62s. 6d. delivered. Native all-mine hot-blast pigs are 67s. 6d. to 68s., and common sorts 41s. 3d. to 42s. 6d.

The Capponfield Blast-Furnaces, Bilston, which have previously been held on lease by Messrs. T. and I. Bradley from Messrs. Bagnall and Sons, have this week been bought out and out by the lessees, who are rebuilding their third furnace. The manufactured iron trade shows no particular change on the week. Only a portion of the works have yet been restarted; the bulk will remain shut down until next Monday. With the new year, in accordance with the recent award of Alderman Avery, of Birmingham, puddlers will secure an advance in wages of 3d. per ton, and millmen's wages will simultaneously advance 2½ p. cent.

This (Thursday) afternoon the Iron Trade Wages Board met in Birmingham to deliberate upon a new sliding scale. Alderman Avery, President, was in the chair. The men contended that the new basis should be at the rate of 1s. per ton above the average selling price of bars. The employers proposed the readoption of the old scale—6d. per ton above bar price. The President remarked that the men wanted a minimum but not a maximum to the scale. It was resolved to leave the President to decide whether the rate should be 6d. or 1s.

Mr. George Barker, manager of the Bedworth Coal and Iron Company, was entertained at dinner on Saturday by about 150 employees and friends, and was subsequently presented with a testimonial, consisting of an illuminated address, a secretaire, silver cruet, and silver egg-stand, while Mrs. Barker was presented with a handsome gold watch and chain.

At Cannock Chase Colliery, No. 3 pit, a shocking accident occurred on Saturday, whereby three men lost their lives. In accordance with the Mines Regulation Act, the condition of the rope was tested with a load of two tons of coal, and, as all went well, three men were admitted to the cage at the end of the rope, to go down to feed the

horses before the beginning of the day's work. The engineman had hardly begun to lower the cage before the rope snapped, and both cage and men fell a distance of 150 yards. From the sounds that came up the shaft it was only too evident that they had gone through the timber flooring, constructed of 9 in. balks, which covers the sump. Volunteers quickly descended by another shaft. It was found that the timber flooring had been broken through, and the iron cage and its occupants were all in the water below. By three o'clock in the afternoon the sump had been sufficiently emptied to allow of the recovery of the bodies, which were dreadfully mutilated. The pit is well managed, Mr. Arthur Sopwith being the resident viewer, and Mr. Jackson mechanical engineer. The cause of the breakage of the rope, which was 4½ in. circumference, is at present a mystery. Five months ago it was obtained new from one of the best wire-rope firms. The severance occurred about 12 yards from the cage.

TRADE OF THE TYNE AND WEAR.

Dec. 26.—The weather at sea has been moderate during the week, and shipments very considerable. At Tyne Dock alone nearly 100,000 tons of coal and coke have been shipped. A vessel was loaded a few days ago with 1200 tons of coal in Howden Dock in the short space of two hours; this shows what can now be done on the Tyne in dispatching cargoes of coal. Most of the steam coal works on the north of the Tyne have been better employed this week, and the collieries in Durham are generally fully employed.

The Northumberland Miners' Association demonstration at Blyth, in commemoration of the twentieth anniversary of the Union, took place on Monday. There was a threefold object in calling the meeting. First, the miners wished to register their gratitude to the pioneers of Unions, in the second place to demonstrate the cordial relations existing between employers and employed, and in the third to show that not only is there strength in unity, but that a wise application of that strength is productive of equal advantage to employers and workmen. The proceedings were commenced by a luncheon in the Mechanics' Hall, afterwards Mr. R. Fynes presented medals to a number of old men who took part in the formation of the Union in 1832 and 1844. These men are really old, being from 70 to 84 years of age. A medal was presented to these men bearing a suitable inscription. Afterwards a meeting was held in the Blyth Links, and all the Northumberland collieries were represented.—Mr. R. Fynes in the chair. It was addressed by a number of the old miners, and also by Mr. Burt, M.P., who in the course of his speech said that reference had been made to the Unions of past times; these Unions were all local and fitful, they existed only for a short period. Now, for the first time, they had an organisation which embraced the whole of the county, and that had become a permanently established institution. In the past the Unions generally led to strikes. He was no advocate of strikes, his efforts had been to prevent strikes. He stated in general terms the number and result of arbitrations during the past few years, and praised the loyalty of the men to their engagements.

The introduction of the electric light for mines is now an accomplished fact. Preparations are being made to light several of the large collieries on the surface and near the shafts underground with the light. The enterprising firm of Bell Brothers successfully tried for the first time on Wednesday last at their Page Bank Colliery the electric light for the illumination of the works both above and below. The system used is that of the Maxim-Weston Electric Light Company, and there are nine lights at bank in the engine-house, &c., and 24 underground in the stables, engine-room, &c. The motive-power is obtained by a double engine with a pair of 10-inch cylinders, 20-inch stroke, done at 90 revolutions per minute. A second engine and dynamo is in a forward state, and in a short time will be at work, when the whole of the surface works, colliery offices, &c., will be lighted. The engines for running the dynamos are worked by steam, obtained from the waste heat at the coke ovens. This firm is also making oil from condensed gases drawn from the coal while burning in the ovens, the new process which we have often noticed in this letter, and which is likely to prove a commercial success.

The Miners' Conference at Leeds was opened on Wednesday last, Mr. Pickard in the chair; most of the mining districts in this country were represented, and altogether about 250,000 miners were represented by agents or delegates. Mr. Pickard, in his opening address, laid his views before the meeting. He considered that since 1872 there had been a great over-production of coal. In the county of Durham the over-production had amounted to 102 tons per man; in Yorkshire and Lancashire to 90 tons per man; and in all the other districts the increased output had been nearly as great. He also said that the price for hewing coal had gone down 50 per cent. during the past ten years, and that over-production had caused the trade to fall into the hands of middlemen. He advised that the output should be reduced by 10 per cent. universally throughout the country. A resolution was passed which was moved by Mr. Aspinall, and seconded by Mr. Crawford, of Durham, affirming the principle of restriction as the necessary thing to do at this time. It was also resolved to recommend that coal getters should only work five days per week, and should not be more than eight hours per day in the pits. These questions are certainly very important, and worthy of the most serious consideration. With respect to middlemen, all large trades have to deal with them more or less; but many branches of the coal trade have no connection with middlemen. As a rule, the great gas-coal collieries deal direct with the gas companies, and coking coal works deal direct with the consumers; but it is not possible to dispense with the services of these men in many branches of those trades. The same remark applies to the iron, chemical, and all other large trades. Mr. Pickard appears to apply the term over-production to increased production generally; but this view is, we consider, fallacious. Coalowners are driven to increase the output as much as possible in order to keep down the cost of raising the coal, as they must compete with other districts in the markets. If the output was seriously reduced over the whole of Great Britain it might possibly increase the price of coal generally, and thus afford the miners higher wages for a time; but this would certainly stimulate the production of coal in other countries. Any attempt to effect such a general reduction of the output in this country will, no doubt, prove futile. If we take the increased output per man in Durham since 1872 to be 100 tons, it follows that the men have earned an increase of wage per man per year of about 5l. or, for 70,000 men, an aggregate of 350,000l., as the pay price in Durham is, we believe, at the present time about the same as in 1872. When the wages of the men have fallen 50 per cent. during that period, as stated by Mr. Pickard, we can form no idea. In the East of Scotland there is at present, we believe, little union amongst the men, and coal is raised there at a very low rate, and these coals compete very keenly with the second-class steam coal of this district. Looking at the coal trade in this district at the present moment, the output has during the past few weeks been largely reduced in Northumberland, owing to the falling off in the winter demand for steam coal, the miners in that county will be very glad indeed to get five days' work per week during the next three months. Many of them will, however, probably scarcely reach four days per week. In Durham full work is the rule, and we have little doubt that the miners, as a rule, will avail themselves of the opportunity to earn full wages, and if the value of coal continues to improve, which appears to be probable at present, the miners will get increased rates by the action of the present sliding-scale.

The improved tone of the Iron Trade at this period, when business is usually quiet, is considered a very satisfactory indication, and better hopes are entertained for next year's trade. As stocks are low, and merchants do not appear to have much on hand, the trade is expected to improve. The makers at all events will keep their rates up. There is little change in the price of raw or manufactured iron. Ship-plates are 6l. 10s.; angles, 5l. 17s.; common bars, 6l.; boiler-plates, 7l. 10s. Pig-iron is maintained firmly at 43s. per ton. The progress of iron shipbuilding at the North-Eastern ports during the past year must be considered entirely satisfactory. So far as we can learn at present, the firms on the Clyde, which so long held the lead, have launched during the past year—that is, the 40 iron shipbuilding firms—10,000 tons each, or 400,000 tons, while the North-Eastern ports have launched 535,000 tons, so that the total tonnage of the North-Eastern ports far exceeds that of the Clyde.

The average tonnage from the building yards on these rivers also exceeds those on the Clyde. The largest production on the latter river during the year appears to have been 31,600 tons, while the largest from a yard at the North-Eastern ports is about double that amount. It is expected that the Wear will have launched 180,000 tons, and the Tyne 210,000 tons. What the production of this class of vessels will be on the Tyne during the next year it is, of course, difficult to presage, but it is reasonable to anticipate that there will be a large increase. When the Armstrong-Mitchell Company get into operation there is no doubt that there will be a large output of iron vessels there. All the materials for the construction of vessels of all kinds, not only mercantile but war vessels, will be manufactured on the spot, including guns of all kinds, so that a vessel of war of the largest size can be constructed and equipped with every necessary material on the spot. A lecture is to be delivered in Newcastle shortly by Mr. T. P. Barkus on "Ocean Canals," with special reference to the projected canal from the Tyne to the West Coast. This scheme we have noticed before in this letter, and, as formerly noticed, it is not a new scheme, but a very old one; it is, however, considered by many as Utopian. We have, however, little doubt that it will be seriously entertained at no distant date, and that it will be ultimately actually constructed.

REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

Dec. 28.—It is a matter of regret to hear of Mynydd Gorddu going into liquidation, and of other mines in Cardigan not prospering as they ought. It is satisfactory to those most immediately concerned to know that such results have not come about for want of strong efforts after different and better; they must have another try. The coal trade keeps good, and there is no difficulty in maintaining prices, the one drawback being that contracts were entered into at low rates before the advance took place. The other mineral industries of the district are also in a good state. Limestone quarry proprietors say they have not been so pressed with orders for many years. This fact speaks well for two great industries—agriculture and iron. Possibly also some others, as a portion of the limestone raised goes to St. Helens for use in glass manufacture and for chemical purposes.

While we rest at the British Hotel, Bangor, we may talk of the old days 30 years ago, when the copper mines were at work in the limestone bed of the Great Ormes Head, which we passed on our way hither. In those days the watering-place of Llandudno was not the house of Capt. Jones on the hillside, now overtowered by grander buildings, being the most considerable dwelling on the hillside. The copper mines have long been closed, but the inhabitants have taken to mining gold ready coined and fresh from the Mint, on which they prosper better. This is better than copper mining in the mountain limestone, which, neither here nor on the southern promontory of the limestone at Llanymynech, never did much good.

Then we can travel in imagination around the island of Anglesea, noting the extensive limestone-marble quarries from Menai Bridge around by Beaumaris, the faded industry of coal-getting, and on to Amlwch, with its copper and bluestone mines, its paint mills, its miles of ochre pits, its copper smelting and its chemical works, with its gaunt little port, which makes you feel as if you were in a foreign land. Then around by Holyhead, with its port and pier and great breakwater and stone quarries; and so we come around to Carnarvon.

This old town is our next stage by rail, and two miles from Bangor we pass on our right the suspension and tubular bridges. The original of the suspension bridge may be seen in the Canal House, Ellesmere, Salop. It was made by Mr. John Davies, of that town, in order to test the strength of certain links and iron before the great structure was put in hand. Mr. Davies was to be "remembered" if the scheme succeeded, but like many another man whose practical knowledge has contributed to the success of great works he was forgotten in the glory that gathered around the chief actors. Mr. Davies has a grandson who, though young, has done some good work in engineering, and may yet do more.

Next we come to Port Dinorwic, a nice little creek on the Menai Straits, where the slates from the Dinorwic Slate Quarries, in Llanberis, five miles away to our left, are shipped. It is a busy little place, and the houses display the signs of the thrift that characterises the slate quarrying centres in North Wales. As we approach Carnarvon we have now and again on our left bosses of rock, which are among the oldest in the island; Twthill, rising above Carnarvon, is an example. It is a gneiss rock, like those of Norway and Sweden, and it lies below the base of the great mass of the Cambrian strata. So we come to Carnarvon, where we will linger awhile, and traverse its extensive slate quarries, and note its long picturesque harbour, crowned by the ancient castle; visit its foundries, where machinery and wagons for quarry and mine are in full progress, and then we will sojourn awhile at the Sportsman.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Dec. 28.—Seeing that very little work has been done in any direction during the first half of the week at least, it is out of the question to report as to the state of trade. Work at the leading establishments engaged in the production of pig has been good, for there has been a steady demand for it, but as the works in Sheffield, as well as in Lancashire and Staffordshire, have been standing, the requirements for the present week have of course fallen off considerably, but the opening of the new year will see business in this department generally brisk. There is also every prospect of a better state of things as regards the manufacture of iron, which has been anything but in active request for a considerable time past. At Dronfield there has been marked briskness during the year in the production of steel rails, but as the works are to be removed into Cumberland, having been purchased by Cammell and Co., of the Cyclops Works, Sheffield, the district will be considerably impoverished in consequence, and property owners and shopkeepers in particular will be great sufferers. No time, however, has as yet been fixed for the removal, but it is expected to take place during the spring. The coal trade of Derbyshire was not quite so good at the close of last week as it had been sometime previously, but the holidays having come in opportunely to clear away stocks, the new year promises to open out well, provided there is no hindrance to business operations on the part of the workmen who have been threatening to limit the output of coal in the expectation that by so doing they would advance the price of it, and their own wages as well.

As yet the colliery proprietors have not taken any notice of what the men, or their leaders at least, have been proposing to do, but no doubt their action will be prompt and decisive should any attempt be made to dictate to them as to how their collieries should be worked. House coal has been in rather better request, and for the next week at least there will be plenty to do at the collieries, seeing that merchants' stocks have got low, although the weather of late has become mild. There has been very little change as regards steam coal, for during the holidays the consumption has gone on much as usual, seeing that blast furnaces and locomotive engines do no participate in the holidays. Gas coal is also in the same position, for the consumption has gone on much as usual. At the pit belonging to the Clay Cross Company where the explosion took place last month the men are much dissatisfied with having to use safety-lamps, and have been ready to strike against them. They have, however, sobered down a little, and now ask that the prices for getting coal shall be advanced in consequence of their having to work with a light that gives a less illuminating power than a candle. They altogether ignore the fact that the safety-lamp has been introduced for the purpose of ensuring greater safety to them, and not for the advantage of their employers. But they would evidently sooner run the risk of another explosion than sacrifice an infinitesimal portion of their wages for the purpose of averting one.

During the week no work whatever has been done in Sheffield at the various establishments engaged in the production of iron and steel goods, and, as usual, advantage has been taken of the holidays to make repairs and additions to machinery, and clean down, as the saying is. But the new year will open out well, for in almost every department there are heavy contracts in hand to be continued or

commenced. This is more especially the case as regards the new armour-plates in which Browns and Cammell's are so well supplied with orders, that they will require no more for some months to come to keep their works in full operation. In steel of all kinds, Bessemer, crucible, and the open-hearth, there will be plenty, doing for the requirements for various purposes have been growing heavy for some time past. Rail makers have plenty of work in hand, and there is plenty to do in the production of springs, tyres, axles, wheels, and similar material. The cutlery houses all round were particularly busy up to last Saturday, and will commence the new year well. The same, indeed, may be said of almost every other branch of trade in the town and neighbourhood. In the Barnsley district the ironworks have been well employed—the furnaces at Milton having been at work as usual, whilst the mills at that place and also those adjoining at Elscar have been kept busily going. The same was also the case at the Thorncliffe Works of Messrs. Newton and Co., a firm which now sends the largest tonnage of coal to London of any in the West Riding.

The smaller foundries have also been favourably off for business, especially in colliery castings and wagon material. At Penistone an active trade has been done in steel, the Bessemer converters being kept constantly going, whilst there has been a large output of rails and axles. There has been nothing new to report with respect to the coal trade, very little business having been done during the week in the South Yorkshire district. Some interest, however, is felt as regards the future proceedings of the miners, more particularly those belonging to the Association, who will, of course, endeavour to carry out the decision come to by the Conference held at Leeds. The colliery owners in the West Riding were the last to give way on the wages question in October and November last, and it is probable that they will not be the first that will be attacked. Those in Lancashire, Staffordshire, and Derbyshire were the first to give way, so that attention is now being directed to the course that the mineowners in those counties will adopt with respect to the limiting of the output of coal.

TRADE IN SOUTH WALES.

Dec. 28.—The export of coal at Cardiff, Newport, and Swansea was very large last week, no less than 248,179 tons having been sent away. Cardiff shipped 144,074 tons foreign and 23,237 coastwise; Newport, 29,871 tons foreign and 19,622 coastwise; and Swansea, 21,275 tons foreign and 10,100 coastwise. The men at the pits, in consequence of low wages, have not been able to take a protracted holiday, and work at the end of the week will fall into its old groove. Prices range from 9s. 3d. to 11s. 6d. per ton. Another find of coal has taken place at the Rhos Llantwit Colliery. For many months past the manager, Mr. John Richards, has had to contend with a large fault. The seam, which is 4 ft. in thickness, is celebrated for gas and house coal purposes, and is widely known as the Bedwas Llantwit seam.

Last week Messrs. Lewis Edmunds, of the Bruce Arms, Mountain Ash, and W. L. Herbert, of Sunny Cottage, of the same town, finally arranged to work the celebrated No. 2 Rhondda seam, lying under Pistyll Goleu Farm, situated in the upper part of the Clydach Valley, near Mountain Ash. On Tuesday last operations were commenced with the view of testing the thickness of the seam here, and, should it prove of the usual thickness, opening operations will be proceeded with at once. The new railway which the Taff Vale Company are making up this valley, and which has already proceeded within a quarter of a mile of the spot where sinking will commence, will be of immense assistance to the undertaking, which, it is hoped, will turn out to the satisfaction of the promoters. Should the same success attend this undertaking as has attended the company's other business enterprises such will undoubtedly be the case. This is the first movement of any importance in the Clydach Valley, but now that the railway will soon be completed other enterprising gentlemen will most likely sink here before long. It will be seen from these circumstances that the outcry about the exhaustion of coal is mere vapouring as far as South Wales is concerned. There are many hundreds of miles of coal in this region yet unworked. Under Mr. Talbot's estate of 33,000 acres there is an estimated quantity of 2,290,000,000 tons, the mere fringe of which has only just been touched.

The Iron and Steel Trades are fairly active, and some works are in full swing. The price of labour in these parts gives the manufacturers a decided advantage over those of the North of England. At Cardiff 2604 tons have been shipped, while 9699 tons of ore, mostly from Bilbao, have been received. Prices remain at from 15s. 3d. to 15s. 6d. per ton.

Last Tuesday's Gazette will show the state of the Tin-Plate Trade in South Wales. Over production has placed many firms in the hands of speculators, who rule the market from London and Liverpool. The statement that the output will be reduced 130,000 boxes per week in consequence of the closed works is a fabrication, as the make has been only about 160,000 boxes per week with all the 27 works open. A regulated make of 140,000 boxes per week would supply all needs, and prices would then touch a paying point. Not many years ago prices rose to 30s. per box for coke-mades, but now they are little more than half that price. There is much suffering among the employees, but it is being met to some extent by local subscriptions.

ELECTRIC LIGHT FOR RAILWAY TRAINS.

The application of electric illumination by means of incandescent lamps has now reached a stage at which the question of economy depends solely upon the cost of generating the current. Wherever there is natural or unused power at disposal, electricity, with a well designed incandescent lamp, unquestionably affords the cheapest artificial light procurable, and at the same time a very brilliant one. The proximity of a good waterfall, capable of supplying several horse-power for working a dynamo, can only be claimed by a few; but there is not a railway train run in any country of the world which does not, upon each and every journey, waste as much power as would supply the entire train with an abundance of current to maintain a brilliant light in every compartment, not only during the journey, but for a long period after its completion. So far as present experience teaches, however, there is but one method of doing this in a manner that shall ensure practical success, and fortunately this method is as simple as it is complete. The invention, which is due to Mr. J. B. ROGERS, of Holborn Viaduct, can be described in very few words. It consists in supplying the incandescent lamps direct from a storage battery or accumulator, such accumulator being charged, whenever the train is running, by a dynamo, kept in action by the motion of the train. The sustenance of the incandescent lamps by the use of accumulators carried in the train, has previously been proposed, so also has the supply of such lamps from a dynamo worked by the motion of the train, but both those systems are practically worthless—the first because of the necessity of taking the accumulators to fixed points to be re-charged, the second because the maintenance of the light is impracticable unless the train be in motion. It is the use of the accumulator and dynamo in conjunction, as described, that constitutes the novelty of Mr. J. B. Rogers's invention, and which renders the electric illumination of railway trains easy, desirable, and economic.

But although this general outline indicates the nature of Mr. J. B. Rogers's invention, it must not be supposed that attention to detail is unnecessary, and, with regard to details, it cannot be doubted that he has given them full consideration. The first part of his invention relates to the arrangement of apparatus by which the rotation of the wheels or axles, or one of them only, of a railway vehicle can be utilised for driving one or more dynamo machines fitted thereon, the dynamo being regulated by the apparatus and maintained at an uniform speed, whether the vehicle be moving at a fast or a slow rate of travel, the apparatus being more or less under control of an attendant who travels with it. The apparatus is provided with reversing gear to suit for running with either end of the carriage in front. He affixes a supplementary wheel to one of the axles of a railway vehicle, and by a belt thereon he gives motion to a pulley on the axle of a cone drum, from which, by another cone drum set in an opposite position and a belt, he drives a dynamo machine

through the intermediation of a shaft fitted free to rotate in conjunction therewith. The belt of the cone drum works in a fork of a sliding apparatus under the control of a threaded rod arranged between the drums, which rod can be turned by hand or act automatically to set the belt at any part of the drums. He fits a balance weight on a short axle to keep a wheel in contact with the first-mentioned belt to take up any slack that may occur from the motion of the vehicle—such as when passing points, &c.—and he provides said short axle with a hand lever and rods, so that the wheel can be thrown into closer contact or out of contact when desired. When the apparatus is fitted to a railway vehicle for electrically lighting up a train, he purposes using one or more secondary batteries or current accumulators to maintain the light during short stoppages at stations or otherwise. It has been found in practice the accumulators will maintain their efficiency so completely as to prevent any diminution of light for a period equal to three-fourths of the time the dynamo has been running. Thus, a London and North-Western Manchester express runs from London to Rugby in two hours; with Mr. J. B. Rogers's apparatus, not only would every compartment be brilliantly illuminated by power now wasted in the journey, but if the train were detained for an hour and a-half at Rugby the lights would continue to burn with equal brilliancy, and during a further 30 minutes they would continue to burn, but would yield a gradually decreasing light. For railway trains illumination more than this need scarcely be desired.

THE MINERAL RESOURCES OF NEW SOUTH WALES.

The steady and satisfactory progress made in the development of the mineral resources of New South Wales is well known to readers of the *Mining Journal*, and as it is likely that a larger amount of British capital will now be employed there in connection with mining industry, the volume just issued by the Department of Mines (Sydney: Government Printer. London: Trübner and Co., Ludgate Hill) will be of interest and utility. It embraces an exhaustive report of the Mineral Products of New South Wales, by Mr. Harrie Wood, the Under Secretary for Mines; Notes on the Geology of New South Wales, by Mr. C. S. Wilkinson, F.G.S., the geological surveyor in charge; and a Description of the Minerals of New South Wales, by Prof. A. Liversidge, F.R.S., of Sydney University. But not the least valuable portion of the volume is the laborious and useful piece of work which fills the last one-third of the volume. It is an exhaustive catalogue of the works, papers, reports, and maps on the geology, paleontology, mineralogy, mining, and metallurgy, &c., of the Australian continent and Tasmania, compiled by Mr. Robert Etheridge, jun., late of the Geological Survey of Victoria, and Mr. R. Logan Jack, Government Geologist for North Queensland, and will afford unusual facilities for those who propose to take advantage of the present opportunity to turn to account discoveries already made.

Previous to 1851 coal was, says Mr. Harrie Wood, the only mineral raised, and even up to 1871 the only minerals which had been worked were coal, shale, gold, copper, and antimony, but during the ten years ended December, 1881, tin, silver, iron, lead, asbestos, and bismuth have been added to the mineral products of the province. The important progress that the mining industry of New South Wales has made is apparent upon comparing the value of the mineral production of the past ten years with that of the production of each of the four preceding decades. The value of coal raised prior to 1832 was only 4194l.; but in the ten years ended 1841 the value of the mineral products was 81,275l., which increased to 634,937l. in the next ten years, and to 14,276,637l. in the ten years ended 1861. During the succeeding decade 16,638,574l. worth was raised, and this increased in the ten years ended 1881 to no less than 23,441,890l. Mr. Harrie Wood's last annual report was fully referred to in the *Journal* of Oct. 21, and was certainly the most encouraging yet issued. The returns cannot fail to show the increasing and national importance of the mining interests of New South Wales.

POETICAL PORTRAITS.—The handsome volume just issued by the Rev. Prof. C. B. Bradshaw, of New Malden, under the title of "Poetical Portraits of the Good, the Gifted, the Brave, and the Beautiful, and other poems," contains no fewer than 90 cleverly and melodiously written poems on different subjects. Those of the loyal and patriotic class are bright and spirit-stirring whilst reflecting man's better feelings; the descriptive poems are at once enthusiastic and accurate, and are not unlikely to create a better feeling between Englishmen and Irishmen, and to promote the desire to visit the district wherein so much to gratify the eye can be enjoyed, the wild, wild west coast of Ireland; whilst the elegiac, lyric, and religious poems are pervaded with the finest sentiment and pathos. The religious poems are so entirely free from sectarian bias that they will be equally acceptable to all classes of Protestants. The author, like all true Irishmen, has disgusted with the present anarchical state of his country; he declares that to render the best and wisest statute ever passed for Ireland effective for the permanent good of her population, they must be associated with a rigid abstention by English statesmen from all such kinds of sensational and revolutionary legislation as those which have latterly led to almost universal anarchy throughout that unhappy land, and considers that such legislation has indisputably tended to foster and intensify both sectarian and class antipathies, and to pauperise the people on whose behalf such measures have been ostensibly intended by driving all capital out of the country. The reckless experiments, he adds, have already gone too far and have not satisfied any class of Irishmen, not even the party to propitiate whose wrath and to purchase whose suffrages the loyalist men in the kingdom, both Protestant and Roman Catholic, have been mercilessly plundered; and that too not only without any real and permanent benefit to any other class, but with absolute and widespread injury to the professional, mercantile, and labouring classes in every county in the four provinces. There is not a poem in the volume but will teach as well as amuse, whilst the style in all the many metres used is clear, accurate, and melodious.

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The Red River was first called attention to in Mr. Watson's Cornish Notes, published in the *Mining Journal* some years ago. Into this stream flows the water from the richest mines in Cornwall, carrying along with it such quantities of fine tin that many thousands of pounds a year are made by the "squatters," who have erected machinery along the river, and gather up the "waste products" of the mines. What seemed so singular to the writer at that time was that many agents of the mines either held shares with the squatters, or were, *sub rosa*, squatters themselves.

It is wonderful how "waste products" are now utilised, but not in Red River style. Glycerine, it is well known, is the "waste product" of candle and soap makers. Formerly it was sold for a few pounds per ton; it is now worth nearer 130s. per ton. Treated with nitric and sulphuric acids, it forms nitroglycerine; 75 per cent. of nitroglycerine, mixed with 25 per cent. of earthy matter, forms dynamite. A stronger explosive, however, than dynamite has been found in "blasting gelatine," which is a "jelly" made by dissolving gun cotton in nitroglycerine. Taking 1 as the unit of strength of nitroglycerine, blasting gelatine is 1.2, dynamite is .72, gun cotton .69.

We expressed the opinion long ago that large losses would be made in Indian gold mines, not of one which did we either touch or recommend. There was the same rage in 1851 for Australian and Californian mines that Indian gold mines created two years ago; the former ended in a total loss of three millions sterling, the latter cannot be far short of it. Our correspondent can compare for himself the prices at which many of the Indian mines stood at a year or two since with what they are now, and calculate also how many have been wound up. We never supposed that gold would not be found, but the prices charged for the concessions alone were such as to do away with the hope of any profitable result. It is difficult and sometimes quite impossible to be right in recommending English mines, even when we get the best practical opinions of the day and the mines can be regularly inspected; the difficulty becomes greater when you have no means of testing reports. We always recommend a division of risks in English mines, say six or seven; if they fail, try again.

We are of opinion that an ordinary resolution passed at a meeting of a Cost-book mine to enable a committee to borrow money from a bank would not be binding upon the shareholders generally. It is opposed to the principle of the Cost-book and the spirit of the Statutes Act.

At Great West Chiverton the lode in the 10 west of Watson's shaft is 2½ feet wide with good stones of lead in it. This will soon be under the winze, where the lode is worth 1 ton of lead per fathom.

The discovery at Parys is assuming importance. The lode is now worth 4 tons of copper ore per fathom. This has been discovered in exploratory works in new ground 65 fathoms deep, and the same lode may be cut both at the 45 and 80 levels in a few fathoms driving, thus opening out a new mine. A meeting of shareholders, we understand, will be held very shortly to take one or two matters into consideration.

The New Caradon has about 2000l. in hand. The agent writes very strongly upon the lode referred to last week, and should it turn out as he expects the mine will be second to none of the young Caradons. The agent is the manager also of West Caradon, and we went into "the New," and took a large interest, solely upon his reports and the high opinion he expressed of the property.

SOUTH DEVON UNITED COPPER MINES.

SIR—The important point of cutting through the lode at Pickstone's shaft is in progress, and all is so far satisfactory, being in favour of a deep and lasting mine. The ore, instead of being as in the upper levels chiefly on the south wall, is now found on the footwall, both at the 140 and 155, which all good practical miners will recognise as most favourable to the conclusion that there will be a deep and lasting mine. This is of the first importance to shareholders and the district, as the only doubt and fear, on the part of great men from the west, has been in respect of the ore holding down. Another point in favour is the flookan, which continues its full size, as in the words of the late Capt. Charles Thomas, of Dolcoath: "Never fear for the result in depth, so long as your lode is accompanied by that fine flookan course." Another feature looked and hoped for was the departure gradually of the floor spar, and replaced by quartz instead. This is also going on most favourably, and all that is now wanted is a little more patience while the lode at the 155 is being cut through and opened up upon the footwall, when satisfaction will doubtless be the result to every shareholder.

London, Dec. 29.

S. H. R.

COPPER, TIN, AND TIN-PLATES.—Messrs. FRY, JAMES, and Co. (Dec. 28), write:—Copper is lower in price, although not so low as it was 10 days ago, but transactions continue to be limited to demand for immediate use. Tin is slightly lower than it was a fortnight ago, but prices have become more steady. Tin-plates are quoted higher in price on the reduced makes which have resulted from the recent numerous failures and stopping of works in Wales.

COPPER ORES.

Sampled Dec. 6, and sold at the Royal Hotel, Truro, Dec. 21.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols.	117	£1 11 6	South Devon United.	92	£2 9 0
ditto	113	1 10 0	ditto	14	6 10 0
ditto	109	1 12 0	Gawton Copper	141	0 15 0
ditto	108	1 13 6	ditto	95	0 17 6
ditto	103	1 19 6	Marke Valley	65	1 0 0
ditto	94	1 10 6	ditto	27	1 19 0
ditto	90	1 16 6	ditto	43	3 8 0
ditto	74	1 8 0	ditto	40	3 8 0
ditto	66	7 8 6	Glasgow Caradon	59	4 16 6
ditto	60	5 8 6	ditto	58	5 1 0
Wheal Orebor	57	2 19 0	ditto	55	4 11 0
ditto	70	3 2 6	Holmbush	137	2 3 0
ditto	56	3 2 6	Bedford United.	68	4 14 6
ditto	78	3 5 0	ditto	45	3 9 6
ditto	68	2 19 0	Phoenix	58	4 8 6
South Caradon	77	3 18 0	East Caradon	53	3 9 6
ditto	73	4 3 6	Calstock and Dunes	30	5 4 6
ditto	63	4 5 6	Devon Friendship	20	7 6 0
ditto	93	8 5 6	Mid-Devon	15	4 6 0
South Devon United.	98	1 6 0	Thomas's Ore	12	0 19 0
ditto	96	1 6 0			

TOTAL PRODUCE.

Devon Great Con.	934	£2139 5 0	Bedford United	113	£477 13 6
Wheal Orebor	424	1237 2 6	Phoenix	58	256 12 0
South Caradon	340	1286 4 0	East Caradon	53	184 3 6
South Devon Uni.	300	568 12 0	Calstock, &c.	30	156 15 0
Gawton Copper	235	138 17 6	Devon Friendship	23	104 10 6
Marke Valley	265	458 7 0	Mid-Devon	15	64 10 0
Glasgow Caradon.	170	517 14 6	Thomas's Ore	12	21 8 0
Holmbush	137	294 11 0			

Average standard.....£108 2 0 | Average produce.....53½
Average price per ton.....£2 16 0
Quantity of ore.....2020 | Quantity of base copper, 155 tons 7 cwt.
Amount of money.....£8496 7 0

LAST SALE.—Average standard, £92 1 0 | Average produce.....85½
Standard of corresponding sale last month, £104 14 0 | Produce, 6½

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	911	£2361 14 3
F. Grenfell and Sons	47	35 5 0
Nevill, Druce, and Co.	717½	1497 12 9
Williams, Foster, and Co.	1105½	4086 1 6
Mason and Elkington	239	493 13 6
Total	3020	£8496 7 0

Copper ores for sale on Thursday next, at Tabb's Hotel, Redruth.—Mines and parcels.—Melloniar 609—Wheal Jowell 108—West Seton 61—Wheal Comford 33—Total, 311 tons.

THE DEVON COPPER AND BLENDE MINE.

MESSRS. SPEAR AND PALMER (Auctioneers) WILL SELL, BY PUBLIC AUCTION, on the Mine, on Tuesday, the 9th day of January next, at Twelve o'clock at noon, subject to such conditions as will then be read, all that MINING SETT known as the

DEVON COPPER AND BLENDE MINE,

Situate in the parish of Lamerton, Devon, comprising—
Captain's house, count house, carpenters' and smiths' shop, and all the MACHINERY AND EFFECTS THEREON, consisting of—
ONE 40 inch PUMPING ENGINE, two boilers, ONE 22 inch WINDING ENGINE, one boiler, one Cornish crusher, two jiggers, about 100 fms. of 12 inch pitwork, wire ropes, tram rails, with a variety of mine materials, smith's tools, timber, and about 50 tons of copper and blende ore.
The mine is held under a lease, dated the 15th July, 1880, at the yearly rent of £20, merging into dues in the usual way.
For further particulars and other information, apply to Messrs. TWINCH and W. B. SKEWIS, Liquidators, 2, St. Peter's-alley, Cornhill, London, E.C.; or to Messrs. NICOLLS and BLIGHT, Solicitors, Callington.
Dated 20th December, 1882.

TO BE SOLD, pursuant to an Order of the High Court of Justice, Chancery Division, made in an action GUINNESS v. THE ASTON HALL COAL AND BRICK COMPANY (LIMITED) and others, 1882, G., No. 367, with the approval of Mr. Justice CHITTY, the Judge to whose Court the said auction is attached, by Mr. JOHN J. CUNNAN, the person appointed by the said Judge, at the Grosvenor Hotel, Chester, in the county of Chester, on Wednesday, the 31st day of January, 1883, at Two for Three o'clock in the afternoon precisely, in One Lot, certain properties known as the

ASTON HALL COLLIERY AND BRICKWORKS,

Situate at Aston and Queensferry, near Hawarden, having railway and connecting sidings to the main line of the London and North-Western Railway, close to the Queensferry Station, and the use of the wharfs and coal tips upon the River Dee, including the PLANT, ROLLING STOCK, and every requisite for carrying on a large trade.

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JOHN W. HAWKINS, Chief Clerk.
Dated this 22nd day of December, 1882.

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(Signed) VICTOR T. GRILLET, Treasurer.

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To receive and consider the accounts, balance-sheet, and the ordinary report of the directors, to elect a director and an auditor in place of those retiring, and to fix the remuneration of the directors.

By order of the Board,
W. G. WILLIAMS, Secretary.
6, Queen-street-place, London, 19th December, 1882.

N.B.—The Transfer Books will be closed from the 21st December to the 4th January, both days inclusive.

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I am Sir, yours truly,
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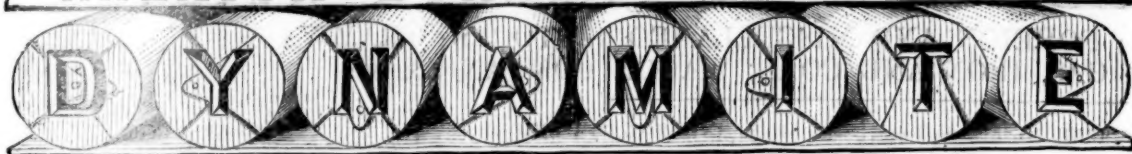
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various sizes and descriptions; and all kinds of MATERIALS required for
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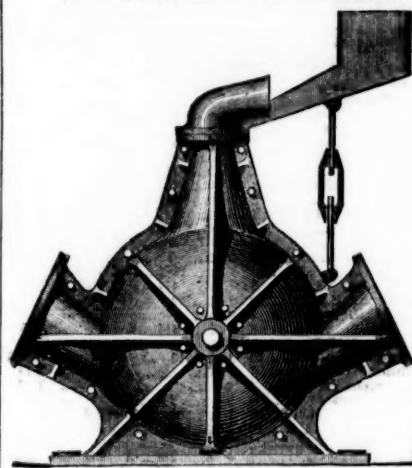
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TOOLS, &c.

STEAM
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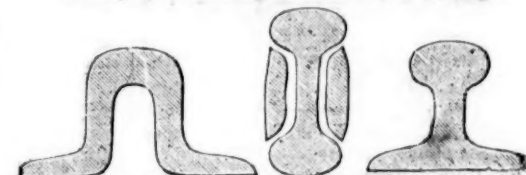
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almost instantaneously, with the Aneroid Barometer, WITHOUT TABLES,
Price One Shilling, post free
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NON-DIVIDEND MINES—continued.

Shillings		Paid.	Last wk.	Clos	per
25000	North Grogwinton, * s-s, Cardigansh.	1	0	0	1
12000	North Herodfoot, t, Liskeard	0	12	6	3
12000	North Penryn, t, Cornwall	0	10	0	3
6000	North Penruthal, t, c, Gwynnapp	2	11	0	3
2936	North Treaskerby, c, St. Agnes	1	0	0	3
8000	Northern, * s-l, Durham	8	17	10	3
5000	Okel Tor, * t, c, n, Calstock	1	0	0	3
6000	Old Shepherds s-s, l, Cornwall	1	0	1	3
12000	Pend Vow, t, c, n, Marazion	1	0	1	3
45000	Pendyarn, t, c, n, Gwynnapp	1	0	1	3
45000	Parys Corporation, * c, n, Agnes	1	0	0	3
7500	Pateley Bridge, l, Yorkshire	1	0	0	3
6000	Peden-an-dra, t, Redruth	3	7	0	3
12000	Pelyn Vow, c, Llanvay	0	2	0	3
20000	Pennant, l, bur, North Wales	5	0	0	3
20000	Pengam, t, c, n, Brecknockshire	1	0	0	3
12000	Pen-y-Grond, s-l, Flintshire	1	0	0	3
15000	Perran Consols, * s-l	1	0	0	3
12000	Perran Wheel Alfred, c	0	2	6	3
3000	Polcrebo, t, Crown	0	12	6	3
10000	Polrose, t, Cornwall	1	5	0	3
8000	Pony Nigel, * s-l, Carnarvonshire	2	0	0	3
6000	Prince Hal, t, c, St. Agnes	0	6	0	3
12000	Prince of Wales, c, s, Calstock	0	19	0	3
50000	Royalton, * t, St. Columb	1	0	0	3
36000	Russell United, * c, Tavistock	0	15	0	3
30000	Silver Hill, * Callington	1	0	0	3
50000	Sinclair, * l, bl, Whitford	1	0	0	3
40000	Sorbridge, c, Horrabridge	1	0	0	3
6000	South Carbis, t, c, Redruth	0	10	0	3
42000	So. Devon Unit, * c, Buckfastleigh	1	0	0	3
5000	South Dolcoath, t, c, Illogan	0	19	0	3
5000	South Penruthal, t, c, Gwynnapp	0	13	0	3
6000	South Teolcar, c, Gwynnapp	1	0	0	3
2043	South Wheel Crofty, c, Illogan	3	4	0	3
40000	Tamar, s-l, Bearaolton*	1	0	0	3
113000	Tankerville Gt. Consols, l, Salop*	1	0	0	3
20000	Tin Hill, * t, St. Stephens	1	0	0	3
12000	Trebartha Lemanar, t, Northill	0	1	0	3
6000	Tregebo, t, c, Cornwall	3	10	0	3
10000	Trevaunant, t, c, Gwynnapp	1	0	0	3
20000	Trevaunant, t, c, Gwynnapp	1	0	0	3
8000	Trevaunant, t, c, St. Agnes	0	0	0	3
12000	Trevice Consols, t, c, Gwynnapp	0	5	0	3
35000	Un. Van & Glyn, * l, (& 17500 pref. sh)	1	0	0	3
1000	Vaughan, * l, Cardiganshire	10	0	0	3
8000	Victor, * l, Olcen, Flintshire	0	14	0	3

let Seton, c. Camborne	12	0	0...	6
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12000	Vincent,* <i>t</i> , Altarnun	1	0	0	—	—
12000	West Asherton, <i>t</i> , Carnarvon	1	0	0	—	—
12000	West Caradon, <i>c</i> , St. Cleer	0	7	9	1½	1½
3000	W. Craven Moor, <i>t</i> , Pateley Bridge*	10	0	0	—	—
12000	West Crebor, <i>c</i> , Tavistock	0	9	0	¾	¾
12040	West Devon Consols, <i>c</i> , Launceston	1	2	0	¾	¾
10000	West Godolphin, <i>c</i> , Bude	1	0	0	¾	¾
20000	West Lisburne,* <i>t</i> , Cardigan	1	0	0	1½	1½
3000	West Mary Ann, <i>t</i> , Menheniot	1	13	0	—	—
20000	W. Pateley Bridge, <i>t</i> , Yorkshire	1	0	0	¾	¾
12000	West Phoenix, <i>t</i> , Linkinhorne	1	0	0	¾	¾
8000	West Polbren, <i>t</i> , <i>c</i> , St. Agnes	0	5	6	1	—
5190	West Police, St. Day	6	5	0	2½	1½
2048	West Wheel Frances, <i>t</i> , Illogan	34	13	3	8	7
3000	West Wheel Pevoor, <i>t</i> , Redruth	3	0	6	7	6
2400	West Wheel Seton, <i>c</i> , Camborne	15	0	0	17½	12½
6000	Wheel Basset, <i>c</i> , Illogan	19	6	0	17½	12½
6144	Wheel Basset, <i>c</i> , Illogan	7	9	0	8½	7½
3000	Wheel Boys, <i>t</i> , Redruth	0	16	0	—	—
50000	Wheel Castle,* <i>c</i> , <i>t</i> , St. Just	1	0	0	1½	1½
12000	Wheel Coates, <i>t</i> , St. Agnes	0	4	0	¾	¾
2585	W. Comf., & No. Tres., <i>t</i> , <i>c</i> , Gwennap	2	2	0	1½	1½
50000	Wheel Elizabeth,* <i>t</i> , Cornwall	1	0	0	—	—
12288	Wheel Jane, <i>t</i> , Kea	2	1	6	1	¾
12000	Wheel Jewell, <i>c</i> , St. Hilary	1	0	6	¾	¾
25000	Wh. Honey and Treawney, <i>s</i> , <i>t</i> , Lisk	2	0	0	2½	2½
12000	Wh. Lundy, <i>t</i> , Callington	0	2	3	¾	¾
2000	Wheel Owles, <i>t</i> , St. Just	7	3	0	8	7
8000	Wh. Prussia, & Cardrew, <i>t</i> , <i>c</i> , Rdrth	4	0	0	1½	1½
30000	Wh. Silver & Lanteglos,* <i>t</i> , <i>c</i> , Camelfd.	1	0	0	1½	1½
6000	Wheel Sisters, <i>t</i> , Lelant	3	10	0	1½	1½
4096	Wheel Uny, <i>t</i> , <i>c</i> , Redruth	16	19	6	5	3
60000	Yeoland Consols, <i>t</i> , Cornwall	0	12	6	1	½
4000	Ystwith,* <i>t</i> , Cardigan	1	0	0	¾	¾

bl, blende; *c*, copper; *g*, gold; *l*, lead; *s*, silver; *s*, slate; *sl*, slate; *sl*, silver-lead; *t*, tin; *z*, zinc; *i*, iron; *a*, arsenic.

*Limited Liability Companies; *t* quoted on the Stock Exchange

t have paid dividends

*Limited Liability Companies; † quoted on the Stock Exchange
‡ have paid dividends

GAS COMPANIES

Issue, Shares,	GAS COMPANIES,	Pd.	Clos. pr.
5000 .. 20.. Bahla [L]	all ..	1	20
10000 .. 5 .. Bombay [L]	all ..	4	14
10000 .. 5 .. Ditto, New [L]	all ..	4	14 1/2
29700 ..Stk. .. Brentford Consolidated	100 ..	155	16
14000 .. 20 .. British	all ..	36	38
50000 ..Stk. .. Commercial	100 ..	200	205
2000 .. 20 .. Continental Union [L]	all ..	26 1/2	27 1/2
520000 .. 20 .. Do., 7 per. 1895, 1872	14 ..	13	13
10000 .. 20 .. Do. do. 7 per. Preference	all ..	55 1/2	56 1/2
23408 .. 10 .. European [L]	all ..	13	20
94850 ..Stk. .. Gaslight and Coke, A. Ord.	100 ..	181	184
294200 ..Stk. .. Do. 4 per cent. Deb. Stock. 1000 ..	all ..	104	108
5000 .. 20 .. Hong Kong and China	all ..	14	15
2300000 ..Stk. .. Imperial Continental	100 ..	195	195
10000 ..Stk. .. London & Lancashire	all ..	19	20
12000 .. 5 .. London & Lancashire	all ..	2	2 1/2
100000 Metrop. of Melbourne 6 p.c. Deb. ..	all ..		
25000 .. 20 .. Monte Video [L]	all ..	14	15
10000 .. 5 .. Ottoman [L]	all ..	3	3 1/2
30000 .. 5 .. Oriental [L]	all ..	7	7 1/2
27500 .. 20 .. Rio de Janeiro [L]	all ..	24	25

ditto, ditto. B.....

Issue, Shares,		TRAMWAYS.	Pd.	Clos. pr.
40000	5	Anglo-Argentine [L]	all	5½ 6
10000	0	Barcelona [L]	all	10½ 11½
71400	0	East Street Tramways	all	7½ 8
30500	0	Birkenhead, Ordinary	all	2½ 3
30000	0	Ditto, 6 per cent. Preference,	all	7 9
92300	0	Bristol [L]	10	7½ 8
250000	10	Bordeaux Tram & Omnibus [L]	all	10½ 10
32000	0	Chester [L]	all	9 10
100000	0	Dublin	all	9½ 10
14600	0	Edinburgh	all	10½ 11
35000	0	Glasgow Tramway & Omnib. [L]	9	17½ 18
100000	0	HughesLoco, and Tram. works, all	all	10 11
75000	0	Hull Street Tramways	all	7½ 8
75000	0	Imperial [L]	all	5 6
140000	0	London Univ. Tram & Om. [L]	all	10 11
25000	0	London [L]	all	12½ 13
150000	0	London Street Tramways	all	13½ 14
600000	0	North Metropolitan	all	16½ 17
80000	0	Nottingham and District [L]	all	9½ 10
139470	0	Provincial [L]	all	9½ 10
60000	0	Sheffield	all	5½ 6
50000	0	Southampton	all	6½ 7
80000	0	Sunderland [L]	all	2 3
100000	0	Swansea [L]	all	5 6
120000	0	Tramways of France [L]	all	4½ 4
165000	0	Tramways of Germany [L]	all	11 12
200000	5	Tramways of Germany [L]	all	11 12
40000	0	Tramways Union [L]	all	3½ 4
350000	0	Yale of Clyde	6	all

TELEGRAPH COMPANIES

TELEGRAPH COMPANIES.			
Shares.		Pd.	Clot. pr.
86 1/2	Anglo-American	100 0	48% 49 1/4
10	Brazilian Submarine	10 0	11 1/2 12
10	Cuba	10 0	9% 10 1/4
10	Direct Spanish	9 0	6% 7
20	Direct United States Cable ...	20 0	11 1/2 12
10	Eastern	10 0	11 1/2 11 1/2
10	East. Exten. Austr. and China 10	0	11 1/2 12 1/2
10	German Union	10 0	11 1/2 11 1/2
10	Great Northern	10 0	12 1/2 12 1/2
25	Indo-European	25 0	31 32
10	London Flatino Brazilian	10 0	4 4 1/2

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